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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

JUNE, 1946

Fire Hose — the Indispensable Link between the Water System and the Fire — in Service at a Recent Six-Alarmer in Philadelphia

A CASE - SHEPPERD - MANN PUBLICATION

Asphyxia— Lurks on every Beach!

Are You Prepared to Cope with this EMERGENCY?

The

EMERSON RESUSCITATOR

is Dependable Always

Every Chief who protects a bathing beach, lake or the "old swimming hole" has this potential hazard.

The EMERSON RESUSCITATOR with its automatic signal of froth, usually present in drowning cases, and its aspirator to remove it, has demonstrated its superiority in America's foremost parks and beaches.

"EMERSON", a name that stands for the finest equipment available.

★ *Send for literature or an actual demonstration.* ★

J. H. EMERSON COMPANY

Representatives in Principal Cities

22 COTTAGE PARK AVENUE CAMBRIDGE, MASS.

How FEDERAL Sirens are designed for life-saving dependability

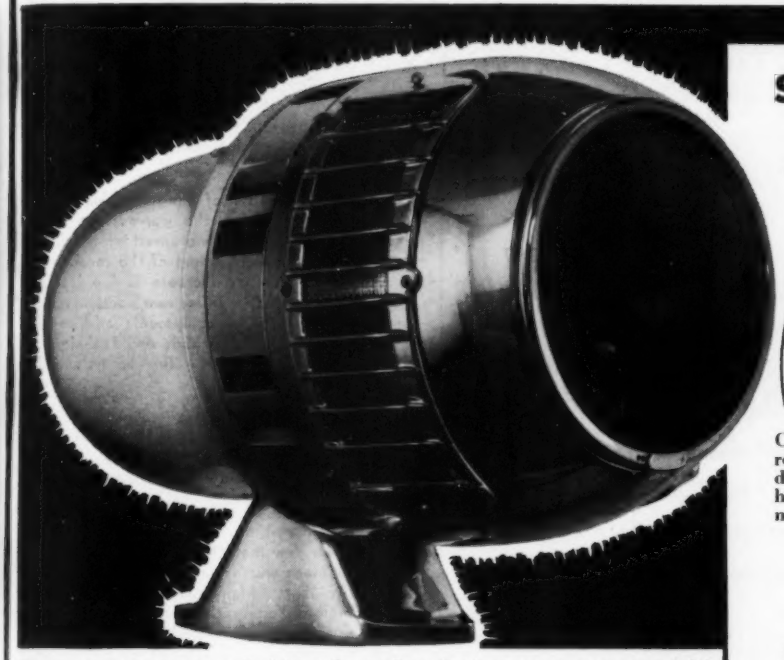


Illustration shows the handsome Model C-5, Coaster Siren. Clutch release on rotor permits full 3-minute roll; electric coaster brake if desired. Flashing red light or grille front. Size: 16" long, 9" high; weight 25 lbs. Massive; durable; one of Federal's most powerful sirens for emergency vehicles.

The instant that separates safety from danger is so short that a vehicle siren must have the clearest, most recognizable tone possible, and the siren must be absolutely dependable.

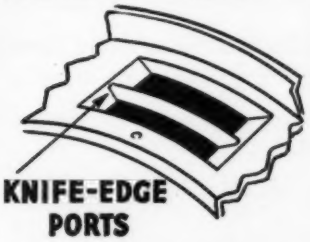
Federal Sirens are meticulously designed and accurately built. The results are instant starting, long life, dependability, and a deep, powerful tone that penetrates far ahead, through other traffic sounds. For penetration, clear, true pitch is essential. Federal gets this with square, knife-edge ports, accurately spaced around rotor and stator; with thin, smooth blades; and with individually balanced rotors to avoid muffling vibration.

Handsome streamlined housing protects and encloses all working parts, and lends massive appearance to this big siren. Federal makes many types of sirens, at various prices. Choice of coaster or regular models; flashing or motor-driven oscillating lights; various mountings. Federal features assure greatest possible safety, dependability; longest trouble-free operation. Write for details and prices today—get the booklet at right.

SOME FEDERAL FEATURES

THIN SMOOTH BLADES

Cast aluminum or die-cast zinc alloy rotors, accurately machined, individually balanced. Thin, smooth blades handle large air volume with minimum current consumption.



KNIFE-EDGE PORTS

Square knife-edge ports assure even cut-off and true-pitched penetrating roar. Ports are spaced at exact intervals around rotor and stator, and balanced with motor speed for correct deep pitch throughout entire tone range.

Heavy duty long-life motors; ball bearings. Vehicle models 6 or 12 volts DC; others from 6 to 250 volts DC or 25 or 60 cycle AC.

Get Bulletin Free

Details, illustrations, and prices on this and other types of Federal Sirens, horns, and signals. Write today.

FEDERAL ELECTRIC COMPANY, INC.

SIREN HEADQUARTERS

8702 SOUTH STATE STREET, CHICAGO 19, ILLINOIS

Kindly mention FIRE ENGINEERING *when writing advertisers*

FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

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FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

The Convention—and the "Issue"

THE first post-war convention of the International Association of Fire Chiefs in Cleveland, July 23-27, will, we believe, prove the most momentous in the 73 years of the IAFC.

- That is because of the multiplex post-war problems facing the war-worn, undernourished fire service—foremost of which is the complete rehabilitation of the service to control the alarming increase in fire losses, rehabilitation that requires new construction; new apparatus and equipment; additional personnel and new methods and techniques to meet new peacetime fire hazards and risks.

- The IAFC convention will discuss all these, and related problems. So, too, will FIRE ENGINEERING in its big, meaty July Convention Issue—to be distributed at the Convention.

- Many long-time readers of FIRE ENGINEERING say that this annual Convention Issue is alone worth their whole subscription price to them. Many others say that it is a complete "convention" in itself—including, as it does, the printed "exhibits" of all the worthwhile manufacturers of apparatus and appliances vital to the fire service. One thing we do know—the Convention Issue is read, re-read and referred to more than any other single copy of any single publication serving the fire prevention and fire protection field.

The Publishers

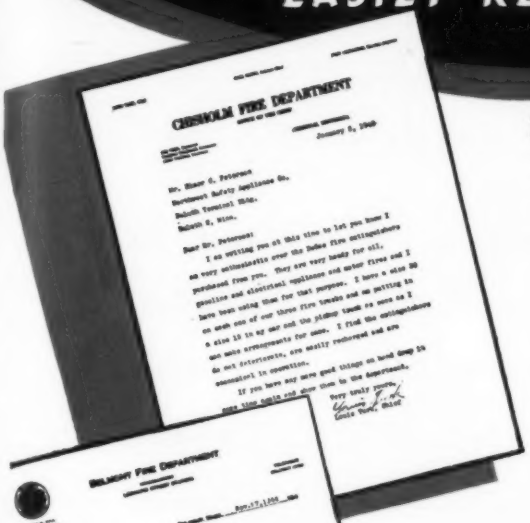
FIRE ENGINEERING

The Journal of the Fire Profession since 1877; published on the fifteenth of each month by Case-Shepperd-Mann Publishing Corp., 24 West 40th St., New York 18, N. Y., also publishers of *Water Works Engineering, Sewage Works Engineering*, etc. ¶Subscription price: U. S., Latin America and Canada, $2.50 a year; Foreign, $3.50; Single copies, 25c. ¶Member of Audit Bureau of Circulations and Associated Business Papers, Inc. ¶Entered as second-class matter April 15, 1929, at the Post Office at New York, N. Y., under Act of March 3, 1879. ¶Contents of this issue copyrighted, 1946, by Case-Shepperd-Mann Publishing Corp. President and Advertising Director, KARL M. MANN; Vice-President and General Manager, I. HERBERT CASE; Secretary and Editorial Director, FRED SHEPPERD; Assistant Advertising Director, WALTER H. FREDRICKS; Advertising Manager, WILLIAM J. GIBSON; Circulation Manager, W. H. TOPHAM. CHICAGO OFFICE: W. S. CLEVENGER and L. M. ROCHE, 6 No. Michigan Ave., Chicago 2, Ill.; SAN FRANCISCO: CHARLES H. WOOLLEY, 605 Market Street, San Francisco 5, Calif.; LOS ANGELES: AUGUST HAURIN, 6000 Miramonte Blvd., Los Angeles 1, Calif. ¶Printed in U. S. A.

A CASE-SHEPPERD-MANN PUBLICATION
"*Specialized* Leadership"

THE FIRE-STOPPING SPEED OF ANSUL-DUGAS DRY CHEMICAL EARNS ENTHUSIASTIC PRAISE FROM MEN WHO FIGHT FIRES

"EFFECTIVE..ECONOMICAL.."
"MINIMIZES THE DAMAGE.."
"DOES NOT DETERIORATE.."
"EASILY RECHARGED...."


CHISHOLM FIRE DEPARTMENT

January 9, 1946

Mr. Elmer G. Peterson
Northwest Safety Appliance Co.
Duluth Terminal Bldg.
Duluth 2, Minn.

Dear Mr. Peterson:

I am writing you at this time to let you know I am very enthusiastic over the Dubas fire extinguishers purchased from you. They are very handy for oil, gasoline and electrical appliance and water fires and I have been using them for that purpose. I have a size 20 on each one of our three fire trucks and am putting in a size 10 in my car and the pickup truck as soon as I get the accessories for same. I find the extinguishers do not deteriorate, are easily recharged and are convenient in operation.

If you have any more good things on hand keep in mind the department.

Very truly yours,

Chief

BELMONT FIRE DEPARTMENT

Dear Sirs

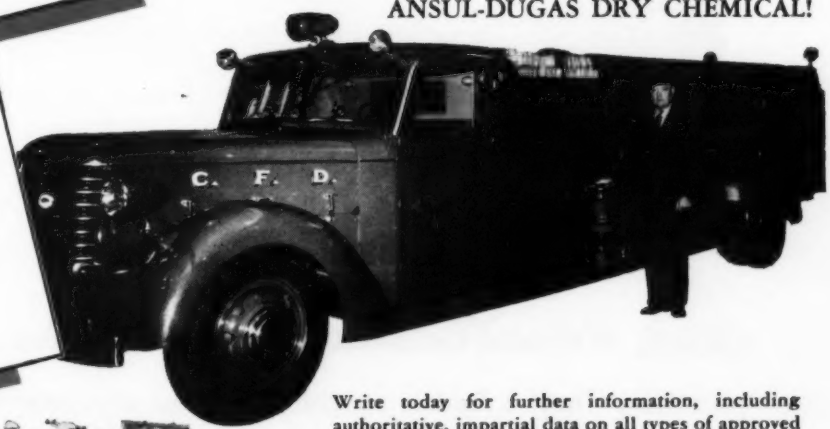
Your letter of September 18 received and contents noted. I shall be glad to allow you to use the pictures of our apparatus with you sound like in reference to Dubas equipment.

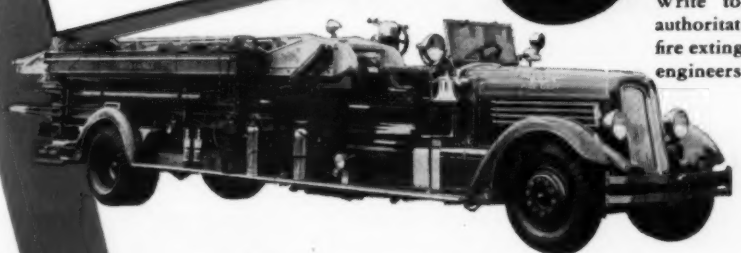
To date equipment is carried on all fire apparatus and after many experiences with a number of years we are recharging all types of fire extinguishers. I have found it very efficient to use the refrigerant of Freon 12. It is efficient to in all cases seems it has been used.

I am now equipping all fire apparatus with the extinguishers and am sold in connection with the extinguishers now carried.

Very truly yours,

Chief





Fire chiefs voice their praise of the swift, fire-stopping power of ANSUL-DUGAS Dry Chemical. Time after time, the ever ready reliability of an ANSUL-DUGAS Fire Extinguisher has helped them prevent thousands of dollars in property damage and production losses. Such solid sentiment in favor of quick-acting ANSUL-DUGAS Dry Chemical, by men whose job is fighting fire, is a valuable tip to buyers of fire protection. STOP FIRE FASTER WITH ANSUL-DUGAS DRY CHEMICAL!

Write today for further information, including authoritative, impartial data on all types of approved fire extinguishers. The ANSUL staff of fire protection engineers is ready to serve you.

AN ANSUL PRODUCT
duGas
THE MASTER OF FLAME

Listed and approved by Underwriters' Laboratories and Factory Mutual Laboratories.

ANSUL CHEMICAL COMPANY
FIRE EXTINGUISHER DIVISION, MARINETTE, WISCONSIN

"Don't Jump!"

These two simple words can mean so much in lives—IF HEARD!

*Manufactured under U. S. Patents and Applications

The human voice is too weak to rise above the manifold noises at a fire. NOW with GUIDED RADIO* Portable Electric Megaphone . . . the voice magnifies 2500 times . . . rises powerful and clear; all are alerted instantly . . . warned against all dangers.

Chief, let Guided Radio Portable Electric Megaphones serve you and save your men. They're light in weight; equipped with internal storage battery and charger.

Write for Illustrated Circular 11

Distributed by GraybaR ELECTRIC COMPANY

GUIDED RADIO
ELECTRIC MEGAPHONE

GUIDED RADIO CORPORATION, 161 6th Avenue, New York 13, N. Y.

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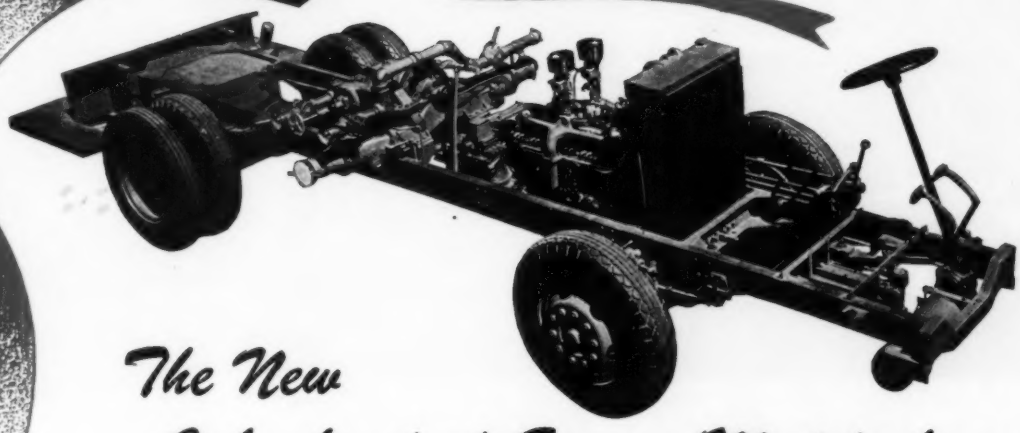
AMERICAN-LAFRANCE *Leadership*

ASSURES YOU OF A FIRE ENGINE WITH STABILITY AND PROPER WEIGHT DISTRIBUTION



The New Cab ahead of Engine Models have . . .

- Maximum of Vision
- Better Accessibility
- Easier Steering
- Correct Weight Distribution

Write for detailed information . . . it is free and no obligation.

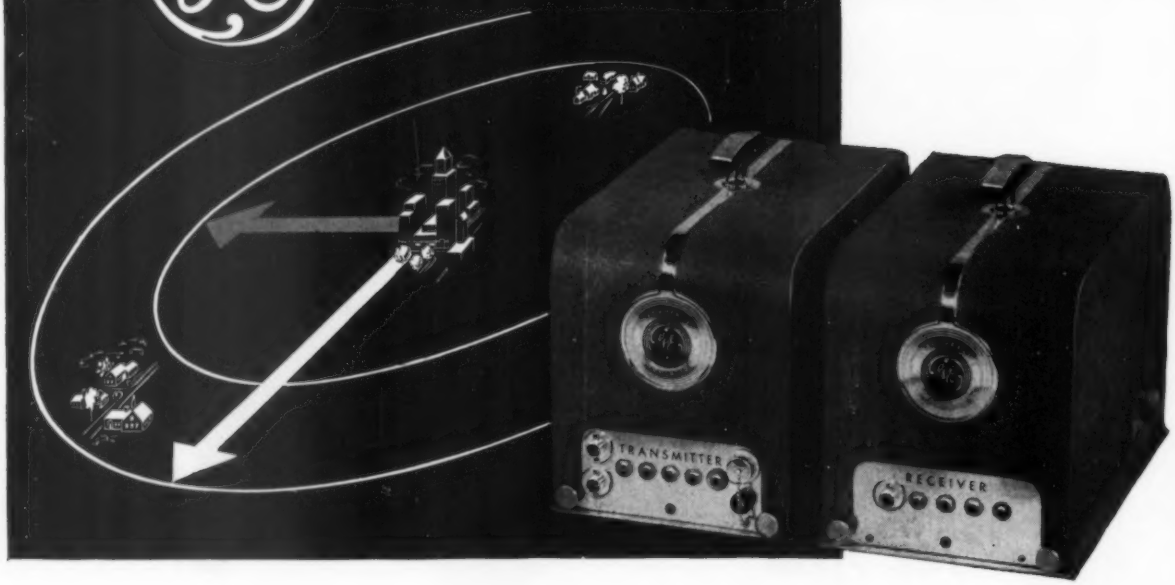
AMERICAN-LAFRANCE-FOAMITE CORPORATION
ELMIRA, NEW YORK, U. S. A.
LAFRANCE FIRE ENGINE AND FOAMITE LIMITED
TORONTO, 9, ONTARIO, CANADA

Greater range...

clearer reception!

with GE 2-WAY FM RADIO

- *Silver-plated, hermetically-sealed crystals*
- *Exact frequency, through adjustable capacitor*
- *Flamenol-covered control cables*
- *Locking type plugs and receptacles*
- *Plug-in type electrolytic condensers*
- *Two battery cables—minimum voltage drop*
- *6½" Alnico V speakers*
- *Complete Accessibility*



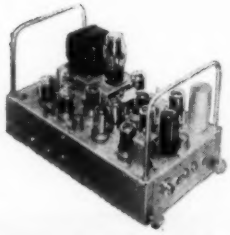
Alarm! Action! Yes, its just that quick when you're equipped with G-E 2-way fire-fighting radio. Advanced design gives you real performance, efficiency, reliability and dependability.

Long-Range Coverage — General Electric's high-sensitivity receiver pulls the message through—out to "the fringe" where signal strength may be as low as 0.5 microvolt or less.

Accurate Message Reception— General Electric's improved audio circuit, with the feature of inverse feedback, provides better voice quality, greater audio output, lower distortion —your assurance of clear, crisp message reception.

Complete Standby Silence — General Electric's highly effective squelch circuit mutes the receiver on all random noise during standby; opens the receiver on a signal input of 0.1 microvolt.

For additional information on G-E 2-way FM radio equipment, or for help concerning your particular communication problem, write: *Electronics Department, General Electric Company, Syracuse 1, New York.*



Top view of chassis of the G-E high-sensitivity station receiver.

Everything for 2-way radio

GENERAL ELECTRIC

165-EPS-6018

THE AUTOMOTIVE INDUSTRY'S
50TH ANNIVERSARY IS MACK'S 46TH

Amityville wants Service...

and knows where to get it!

AMITYVILLE, LONG ISLAND, N. Y. has a trophy-winning volunteer fire department that's used to MACK equipment. Its 120 members can tell of more than 100 awards earned in 25 years . . . a record that's proved by the fact that the fire insurance rate on Amityville homes has dropped 15 cents in the last four years.

Right now, modernization with more MACK Fire Apparatus is the objective at Amityville. First step was the purchase of this 750-gallon MACK Pumper—their third MACK unit. Another one has since been ordered and Chief Robert Drayton reports that another new pumper will probably be bought next year.

Says Chief Drayton, "If the Department is standardizing on MACK Fire Apparatus it is because of the excellent service we are accorded."

Mack Manufacturing Corporation
Fire Engine Department, Long Island City 1, N. Y.

If your community needs additional fire-fighting equipment or replacements, think of Mack. Remember, Mack Fire Apparatus is backed by the greatest engineering resources in the industry.

Mack
FIRE APPARATUS
Performance Counts!

We shall appreciate your mentioning FIRE ENGINEERING *when writing advertisers*

NICE STOPS

BY FMC HIGH-PRESSURE FOG FIRE FIGHTER

THIS FULLY-LOADED *gasoline truck blazed furiously. Nearest available fire equipment failed to stop the fire. It looked like 7 hours of blocked highway traffic, until...*

A SINGLE FMC UNIT *arrived and brought all flames under control in a* few minutes! *Thanks to the FMC High-Pressure Fog Fire Fighter, traffic on this main highway was resumed many hours earlier than otherwise possible. Proof again—FMC equipment and technique* fight fire faster.

IN THIS HOUSE, *the lower floor was saved by FMC High-Pressure Fog after the upper floor was completely ablaze.*

FMC EQUIPMENT *travelled 12 miles, found this upper story a flaming inferno, but scored another ace for quick extinguishment.*

THIS WAREHOUSE FIRE *was cut off immediately by FMC High-Pressure Fog. For fast fire fighting, FMC equipment is setting new records daily. The facts are yours for the asking—investigate.*

With the FMC unit, you get 850 lbs. pump pressure, 600 lbs. (or more) gun pressure. FMC equipment and technique give amazing fast attack with quick extinguishment and minimum water damage. The FMC High-Pressure Fog Fire Fighter is Underwriters' Laboratories approved.

Recently delivered to North Girard Fire Co., Girard, Pa., this FMC unit carries 430 gallons of water, two hose lines, two guns and complete equipment.

FMC *Original* **HIGH-PRESSURE FOG FIRE FIGHTER**

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

John Bean Mfg. Co., 709 Hazel St., Lansing 4, Mich. • Bean-Cutler Division, 409 Julian St., San Jose, Calif.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

Leading the Field
IN ATTENTION AND FAVOR!

*(Have you seen them too?)

THE REVOLUTIONARY
M.S.A. Chemox
SELF-GENERATING

OXYGEN BREATHING APPARATUS

Generates its own oxygen as you breathe—in the amounts you need—giving you one hour's protection in unbreathable air, using a replaceable chemical canister! Weighs only 13½ lbs. complete. No cylinders, high-pressure valves or fittings. Fog-free lenses. Simple to use. Proved by Navy battle service all through the war! Write now for Bulletin BM-8, and an actual demonstration.

ONE REPLACEABLE CANISTER DOES THE WHOLE JOB!

THE SIMPLE, LOW COST
M.S.A. DEMAND-TYPE
OXYGEN MASK

Easy to use as a gas mask—just put it on, open a valve, and breathe! Refillable cylinder supplies oxygen or air to wearer at a rate varied to meet breathing requirements through positive demand-type regulator. One-half to one-hour protection; no chance of breathing impure air; anyone can use it without special training. Full details in Bulletin BM-7. Write for your copy today!

* **PRACTICAL DEMONSTRATIONS ARRANGED ON REQUEST.**

MINE SAFETY APPLIANCES CO.

MINE SAFETY APPLIANCES COMPANY

BRADDOCK, THOMAS AND MEADE STREETS — PITTSBURGH 8, PA.

District Representatives in Principal Cities

In Canada: MINE SAFETY APPLIANCES COMPANY OF CANADA, LIMITED

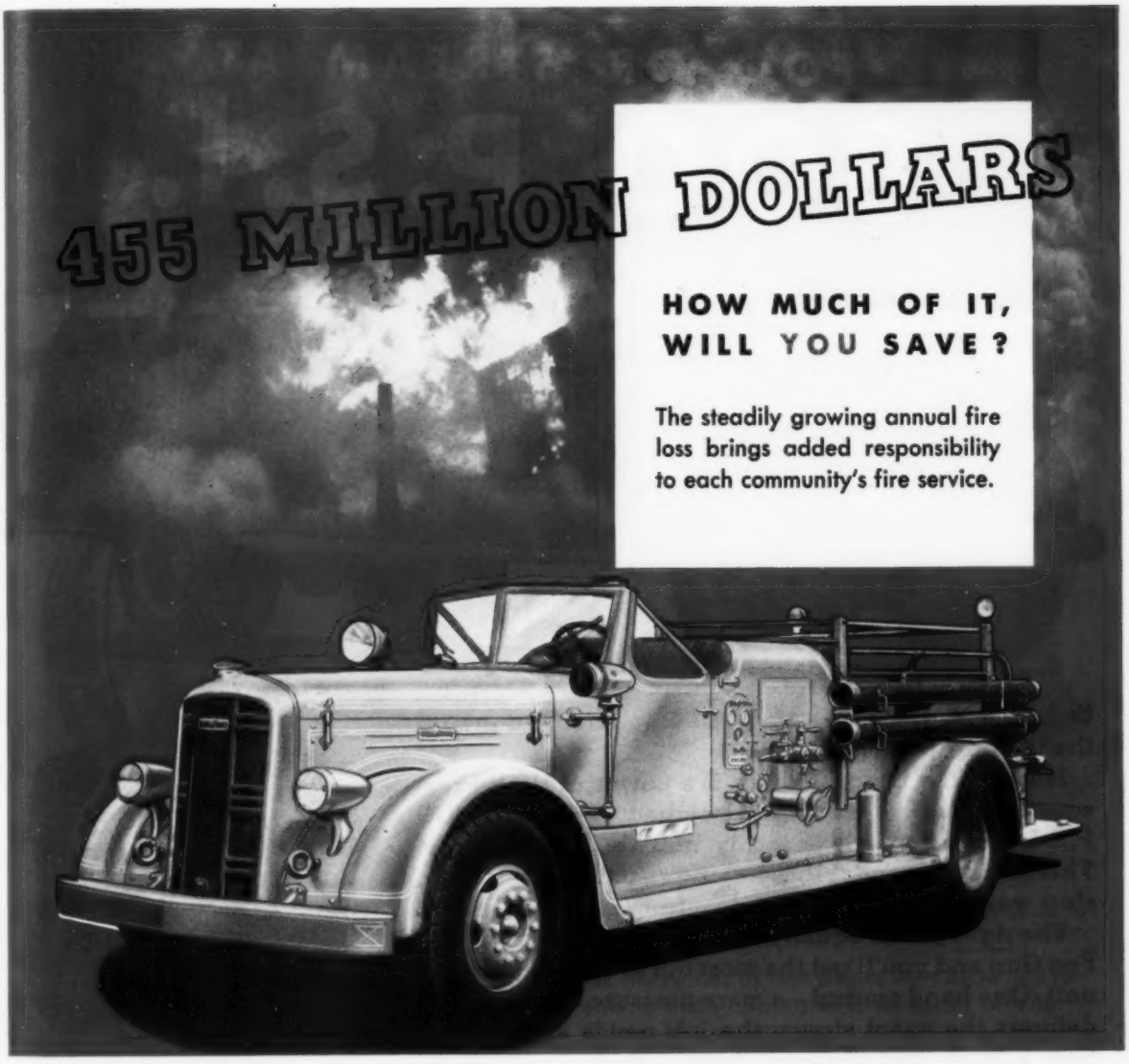
TORONTO MONTREAL VANCOUVER CALGARY NEW GLASGOW, N. S.

See them in action doing your work on your job

See how men work faster with electric tools operated by Homelite Portable generators. Test the capacity, speedy priming and operational advantages of Homelite Pumps on your toughest dewatering job.

There's only one real way to see how well a Homelite Pump handles large volumes, seepage, mud . . . or how easily a Homelite Generator supplies steady current for floodlights, cost-cutting electric tools, communication systems, etc. That way is to get 'em out on the job. Yes, get these handy portable gasoline-engine-driven units out on *your* job and see how they measure up to *your* standards. See how they work for *you*. All you have to do to get a free demonstration . . . the only way to see in advance what you should get for your money . . . is to write to us today. We'll arrange to have a Homelite Representative see you soon.

Homelite
CORPORATION
Port Chester, New York
Portable Pumps Generators and Blowers
GASOLINE-ENGINE-DRIVEN


455 MILLION DOLLARS
HOW MUCH OF IT, WILL YOU SAVE?
The steadily growing annual fire loss brings added responsibility to each community's fire service.

Purchase of adequate fire-fighting apparatus is the best means of reducing fire losses in your community. Replace your war-worn or outmoded equipment with new Ward LaFrance Triple Combination Pumpers.

Ward LaFrance apparatus assures you of maximum performance and dependability. Full powered six-cylinder engine, accurate steering, short turn radius, improved brakes, heavy-duty frame, quick hose hook-up, two-stage centrifugal pump, adequate booster tank, ground position controls and other advanced features can be engineered into a Ward LaFrance for your community.

Dollars spent for modern fire protection equipment now will be repaid many times over in fire losses averted. Write Ward LaFrance today for illustrated bulletins.

Consider Ward LaFrance FIRST

WARD LAFRANCE TRUCK DIVISION
Great American Industries, Inc.

ELMIRA, NEW YORK

Kindly mention FIRE ENGINEERING *when writing advertisers*

FOG OR STREAM AT 800 P.S.I.

● In the Mid-West—a Hardie Pump and Gun are on the job in this Fog Fire Fighter.

Heart of the Hardie system is a powerful High Pressure Big Capacity Pump—designed to deliver 800 P.S.I. at slow speed, smoothly, quickly, continuously. This means dependability in long sustained operation, slow wear, long life and freedom from service troubles.

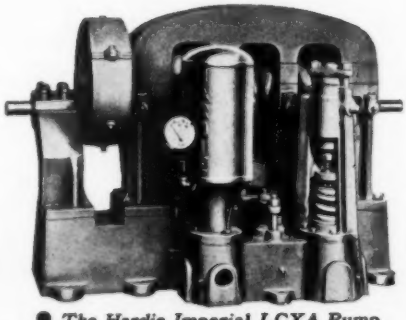
The right gun is equally important! Specify a Hardie Fog Gun and you'll get the most out of any Fog Fighter unit. One hand control—a mere pressure of the fingers delivers the exact stream the job needs at the time, from a hard, long distance driving stream to a finely atomized fog.

Hardie Pumps and Fog Guns are supplied by leading manufacturers of fire control equipment. Write for catalog and complete data.

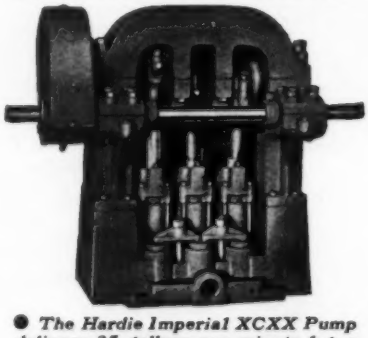
THE HARDIE MFG. COMPANY

Hudson, Michigan Los Angeles, Calif. Portland, Oregon

Canadian Distributor C. W. LEWIS, Grimsby, Ontario



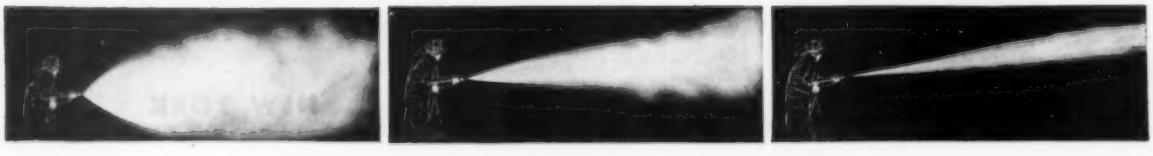
● *The Hardie Imperial LCXA Pump delivers 60 gallons per minute 2-gun capacity at 800 P. S. I. at 130 R. P. M.*



● *The Hardie Imperial XCXX Pump delivers 35 gallons per minute 1-gun capacity at 800 P. S. I. at 118 R. P. M.*

★H★A★R★D★I★E

High Pressure PUMPS AND FOG GUNS for Fog Fire Fighters



AKR·O·LITE APPARATUS LIGHT

Style 530
With regular base.

Style 531
With base spherically curved to conform to cab, car top or fender.

For thousands of feet ahead they know you're coming when apparatus is equipped with Akr-O-Lite. The penetrating, oscillating red beam of light sweeps the pavement. Tne attention-compelling red flasher winks—and the effect warns traffic for as much as a mile ahead.

For safety—for efficiency—your apparatus should be equipped with Akr-O-Lite. Write today for complete information.

FIREMAN FREDDIE SAYS: To speed safely in the dark night, just clear the way with Akr-O-Lite.

AKRON BRASS MFG. COMPANY, INC., WOOSTER, OHIO

AKRON BRASS
FIRE FIGHTING EQUIPMENT

Hitch Your Airport Fire Fighting Program To This Star

The tremendous expansion of commercial aviation and private flying . . . with more and larger airports from coast to coast . . . adds up to one sure thing: *A new job for municipal fire departments and a new responsibility for fire chiefs.*

For your community will look to you and your department for complete know how and preparedness for whipping the appalling fires that can result from plane crashes.

Cardox Airport Fire Trucks . . . utilizing the principles that made this mighty fire fighter outstanding for its specialized wartime job . . . are now available in a unit engineered to the needs of civilian airfields.

Overwhelm Vicious Crash Fires With Amazing Speed

Self-contained . . . highly mobile . . . geared for easy maneuverability . . . the Cardox Airport Fire Truck packs the terrific wallop needed to knock out crash fires fast and make possible speedy rescue of plane personnel. *Tons* of liquid CO_2 can be released onto the fire zone in approximately one minute, if necessary. Backing up this big supply of zero-cold, fast-acting carbon dioxide are hundreds of gallons of foam solution . . . which blankets exposed gasoline and hot metal surfaces during and after extinguishment to prevent possible reignition.

Pictures shown at right, taken during demonstration of a Cardox Airport Fire Truck show three steps in total extinguishment of a vicious fire 30 seconds after extinguishment was begun.

In actual service on crash fires involving heavy bombers, frequently carrying thousands of gallons of aviation gasoline, this "mass attack" of a Cardox Airport Fire Truck has literally overwhelmed raging infernos . . . permitting rescue of personnel in *seconds* after the truck reached the scene of the crash.

New Bulletin Gives Full Facts

This bulletin presents interesting details on design, operation and performance records of Cardox Airport Fire Trucks. It will prove helpful to every fire chief faced with a problem of adequate fire protection for modern airports. Write today for Bulletin No. 1966.

CARDOX CORPORATION

BELL BUILDING • CHICAGO 1 • ILLINOIS

District Offices in New York • Washington • Detroit • Cleveland
Atlanta • Pittsburgh • San Francisco • Los Angeles • Seattle

CARDOX

CO_2 FIRE EXTINGUISHING SYSTEMS

THE LINK BETWEEN SAFETY AND DISASTER...

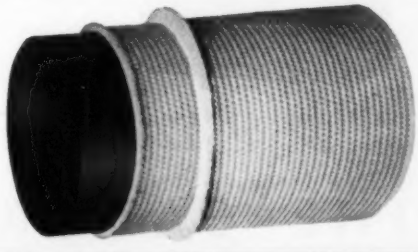
BWH FIRE HOSE!

So much depends on the flexible and compact qualities of fire hose that scores of municipalities throughout the nation choose BWH FIRE HOSE.

This hose is really rugged, yet surprisingly flexible and compact. The tightly woven cotton jacket is fused to the butted rubber tube with steam, resulting in perfect adhesion.

High-quality BWH nozzles, couplings, and other brass fittings made in the modern BWH foundry provide further assurance of consistently fine performance.

Choose BWH FIRE HOSE and fittings when your city needs this equipment! Remember, BWH FIRE HOSE is made by the originators of modern fire hose.



BOSTON WOVEN HOSE & RUBBER COMPANY

Agents in All Principal Cities

WORKS: CAMBRIDGE, MASS., U. S. A. • P. O. BOX 1071, BOSTON 3, MASS.

TRADE MARK
GAMEWELL
REG. U.S. PAT. OFF.

The FIRE ALARM FACTOR

● FIRE ALARM in most cities is seriously deficient . . . yet, until the alarm is given the extinguishing agencies are helpless and fire losses continue to increase.

● THE FACTORS . . . *Water Supply* and *Fire Department* . . . are indispensable elements of the municipal fire defenses but so much importance has been attached to them that the relative values of other fire defenses . . . especially *Fire Alarm* . . . have been largely obscured.

● CITY OFFICIALS and others desirous of improving the fire defenses of their communities are invited to write us for information relative to the FIRE ALARM FACTOR. Our new booklet contains some interesting data on this subject and will be supplied on request.

Ask for booklet, "THE FIRE ALARM FACTOR"

THE GAMEWELL COMPANY

NEWTON UPPER FALLS 64, MASSACHUSETTS

In Canada: Northern Electric Company, Limited, Montreal

FIRE ENGINEERING

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With the Editor

Better Hospital Aid for Services

There's food for thought in the action taken by representatives of the officers and uniformed force of the New York Fire Department in recommending passage of a bill now pending in the State Legislature, under which firemen injured in line of duty would obtain better hospitalization services.

The bill provides for the reception of such injured firemen by public, private and semi-private hospitals for care and treatment at the usual private and semi-private rates, with the cost to be borne by the city.

John P. Crane, president of the Uniformed Firemen's Association of New York, told the committee that more New York firemen were killed or injured in line of duty in 1945 than in any previous year in the history of the fire department.

At various times during past years, officers and members of the fire department have petitioned for better hospitalization, medical care and attention, in line with the improvements given the public, and in many cases, other municipal services. But for the most part these petitions have fallen on deaf ears.

To everyone who has observed the way firemen, whose duties so often bring them injuries, are shoved into public wards in hospitals when private or semi-private rooms are available, and those who have all-too-often seen seriously injured men left in hospitals for considerable time with little or no capable medical attention, this objective will appear most praiseworthy. "Better, more adequate hospitalization" should rank among the top postwar improvements sought for by the fire service.

Let's Have Reform Now!

The other day we went west and as it is our wont, dropped in to see the fire chief of a certain city—a man who generally has been recognized as outstanding among capable firemen.

We were shocked to learn that he no longer headed the department, and even more shocked to hear that he had been reduced to lieutenant of a company.

There's nothing so unusual about this; it is happening every year in many states of our nation, but to anyone who holds forth hopes for improvement in the fire service it is exasperating and discouraging, to see how little we have progressed in this vital essential of the service.

At the risk of colliding head-on with a political stone wall, we rise again to remind the fire service, and those responsible for its well-being and progress that now, if ever, is the time to review this canker on the municipal body politic, and take measures to eradicate it, forever!

Never before in the history of the fire service was there so much interest and activity in examinations and promotions as there is at present. The return of firemen and candidates for the post of firemen to the fire service; the retirement of men who hung on during the war to do their bit and others who have served their time, all focus attention on the problem of replacements and promotions in the service.

If ever the time were ripe to scrape the old barnacle political appointment from the American fire service, it is now!

Fred Sheppard

Fires: How They Start and How They Spread

By R. D. McDANIEL

Every so often a paper comes across the editor's desk which from the viewpoint of topic and treatment is unusual if not outstanding, as meaty material for this journal's readers.

Such a paper was the copy of an address entitled "How to Start a Fire" by R. D. MacDaniel, Vice-president, Grain Dealers National Mutual Fire Insurance Co., which was delivered at the 12th Annual Indiana Fire School at Purdue University, October 23-25, 1945.

It is reproduced below.—EDITOR.

TIME was when the starting of a fire was considerable of a chore. The ancient method of producing fire by friction is now practiced only by Boy Scouts—probably because nobody over twelve years of age has sufficient surplus energy to follow that back-breaking procedure. Certainly if that method were now in vogue there would be far more tobacco chewers and far fewer cigarette smokers. But the method employed by the Boy Scouts embodies the basic principles of modern fire making, regardless of the march of time and the inventive genius of mankind.

First—The Combustible Material

To produce fire we must first have a combustible substance or material. By combustible is meant that under certain conditions the given material will unite with the oxygen of the air with such rapidity as to burn—that is, to give off heat and light. To secure this uniting of the combustible substances with the oxygen of the air to an extent that the union will be self-sustaining, that is, will continue to burn, requires that the substance must in some manner be heated to a temperature substantially above its ignition point.

Naturally, for a given substance, a greater quantity of heat is required for raising a solid mass to the ignition temperature than were the substance in finely divided form, as for example, a block of wood as compared with a pile of shavings or sawdust; but that has nothing to do with the ignition point itself. So we see that before we have a fire we must first have a burnable substance, an adequate supply of oxygen, and the temperature of that substance must in some manner be raised to above its ignition point.

As a possible third element, in addition to the burnable material and the supply of oxygen, some cynically-minded individual may suggest an overly large insurance policy. We are, however, at this particular moment, considering only the physical aspects of the subject.

There is a further factor to be considered. If a substance is combustible, its physical state is likely to be of more importance, from our present standpoint, than its ignition temperature. That is so because most of the ordinary sources of ignition produce sufficient heat to raise the temperature of a relatively small quantity of *any* burnable substance to above its ignition point.

Radiated Heat Makes Fire Extinguishing Operations Difficult

Here the fire fighters have improvised a shield against the heat from a wooden panel. This fire involved a stockpile of nearly 1,000,000 used tires at Atlanta, Ga., early this year.

Anybody knows that a burning match dropped onto a clean board floor will produce no more serious effect than a slight discoloration. Just take a look at the polished floor in any ballroom, and you will be convinced that practically everyone who ever was in that room made such a test, either by dropping lighted matches or cigarettes. Or take a look at the tables, dressers or other heavy furniture in any hotel and you will find where experiments have been made with lighted cigarettes to demonstrate the truth of that statement.

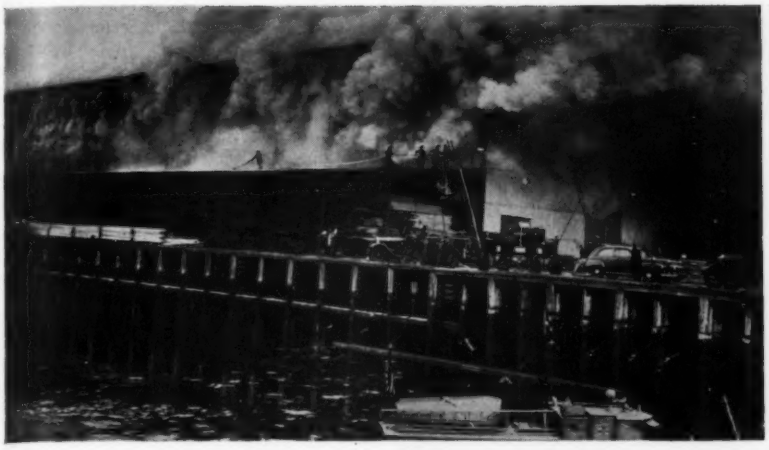
The reason that no more serious effect than discoloration resulted was because the heat of the match or cigarette was dissipated so fast that no portion of the floor or other surface reached the ignition point of the wood of which it was composed. But if the experiment is made in a planing mill, where the floor is covered with shavings, or in a machine shop where sawdust is used on the floor, then the results are likely to be recorded on the front page of the evening paper.

Another example of the importance of the physical state of the material provides the explanation of many a puzzling fire involving heating arrangements that have remained unchanged for many years.

Anybody who has made very many inspections has been told at one time or another, "Mister, that smoke-pipe ain't no hazard—it's been right there where it is now for forty years and it ain't caused no fire yet." The best reply to that argument is one which I heard an experienced inspector make: He said, "Mister, all I can say is that you're just forty years closer to a fire." That inspector realized something which the property owner did not: while to all appearances conditions were just as they always had been, actually the nature of the wood near that smoke pipe had been changed due to continued low-temperature heating. It appeared to be just ordinary wood, which might be expected to have an ignition temperature of from 500 to 800 degrees, but actually the continued heating had produced a chemical change so that the original wood had become pyrophoric carbon with an ignition temperature of perhaps as low as 250 degrees. That chemical change explains why just a little extra heat through that smoke pipe on a cold winter morning might break up three or four games of euchre not to speak of an exciting domino contest or two.

Incidentally, besides lowering the ignition temperature of wood, continued heating at low temperatures will decrease its structural strength. That explains why wooden floors which have for years supported heaving baking ovens or ranges sometimes give way without warning, or may burst into flame even though supposedly insulated.

Sources of heat by which the tem-



Fires Start Small

A falling spark, produced when a crane operator attempted to repair a blown fuse, ignited a cotton bale below, and the resulting fire spread and fully involved a waterfront warehouse at Charleston, Mass. Supplies of cotton and wool, as well as lumber, were destroyed.

perature of materials may be raised are many and varied. In the first place there are devices that normally produce heat when in operation: stoves, furnaces, ovens, portable heaters, pressing irons, steam pipes, etc. These devices cause ignition by radiation. The other day we heard of a fire caused by heat radiation from the sun, abetted by a groceryman who set a box full of broken milk bottles alongside his building. One of the curved pieces happened to catch the sun's rays in such manner as to focus them on a spot in the dry weatherboarding for a sufficient time to cause ignition.

Then there are devices that when in normal operation do not produce heat but which, under abnormal conditions, will produce sufficient heat to cause ignition of nearby combustible materials. A line shaft bearing, for example, is relatively non-hazardous so long as it is properly lubricated, but once it becomes dry, sufficient heat will be generated by friction to ignite the wooden bearing support. Friction may also produce burning embers, as where a belt continues to run over a stalled pulley or against a board which some workman has thoughtfully provided as a guide to prevent the dad-blamed belt from slipping off the pulley. In such cases the surrounding premises are liberally showered with pieces of blazing belt and if there happens to be a number of cracks or crevices into which these can drop from sight, it adds greatly to the interest of the occasion. Overheating of electrical wires or devices also comes in this category of heat producers under conditions of abnormal operation.

Eliminating the mechanical hazard of rotating electrical machinery, electrical fires are due to one of three things or a combination thereof: (1) by radiated heat, which may be natural, as a room heater; or accidental, as from an overloaded wire, which we have just mentioned. (2) It may be due to an arc, which is electrical current passing through air, always accompanied by light, intensified heat (6,000 or 7,000 degrees) and possibly by the throwing about of molten metal and burning insulation; (3) or by sparks, which latter are of consequence only where flammable vapors, explosive dust or highly combustible lint is present.

Another type of hazard is self-heating, which becomes spontaneous ignition if and when ignition temperatures are reached. This source of fire is normally present in many kinds of properties.

Some materials will, under certain conditions of moisture, increase in temperature without being exposed to external sources of heat. Many agricultural products, such as oats, distillers and brewers grains, and ground feed of various kinds, even including dried buttermilk, are subject to this phenomena. The heating of hay is similar in effect but somewhat different as to cause. Some chemicals, such as phosphorous, ignite spontaneously under certain conditions while others produce heat when placed in contact, i.e., water and quicklime. But more common as sources of fire are combinations of ordinary, finely divided cellulose material such as cotton waste, cloth mops or wiping rags, lint, cloth or paper with one of the so-called drying oils—linseed, turpentine, soybean, olive — or even printer's ink. The list is a long one. Any oil which tends to become rancid will induce self-heating. The phenomena is a simple one; it is merely an oxidation process. The oil combines with the oxygen of the air, which combination is accelerated by the fact that the oil is distributed over a tremendously large area of minute fibres that are in themselves combustible.

About Explosives

We have not included explosives as a cause of fire because, actually, an explosion is itself a fire, an extremely rapid one to be sure, but a fire nevertheless. It may seem to be splitting hairs, but if we say a fire was caused by an explosion of gasoline vapors, we actually are not describing the basic cause of the fire. What we should say is that the vapors were ignited by a match, a cigarette, an electric spark or whatever the source of ignition may have been. The same applies in respect to dust explosions. Explosions occur as the result of ignition and are not in themselves causes, although they do serve to increase the extent of the fire almost instantaneously.

Although an explosion results from the same basic causes as does fire in ordinary combustibles, the primary considerations are somewat different. The susceptibility of an ordinary combustible to ignition depends upon its explosive range. Anyone who has ever operated an automobile knows that if his gasoline mixture is too lean or too rich he doesn't get very good operating results from his motor. That is because he is attempting to explode an unexplodable mixture of gasoline vapor and air. If the amount of gasoline vapor in the mixture is from 1.3% to 6% of the total, then the mixture is flammable. In other words, the explosive range of gasoline vapor is from 1.3% to 6%. That is a fairly narrow range. Carbon bisulphide vapor, on the other hand, has an explosive range of from 1% to about 50%—perhaps the widest range of any of the common gases. Naturally the wider the explosive range, the more dangerous is the gas or vapor.

It may not be amiss to here point out that volatiles—gasoline, kerosene, etc.—are not explosive. It is the *vapors* from such liquids that are dangerous. It is the reason behind the statement that an empty gasoline drum is more dangerous

Fire Travels by Radiation of Heat

The grain elevator at the extreme right took fire from an unknown cause, and radiated heat ignited the elevator at center. As this second fire grew in intensity, fire was communicated to the elevator at the left, also by radiation of heat. This fire occurred at Ethan, S. D., in April.

Gasoline Vapor Explosion Proves Fatal

Gasoline vapor in this steel drum became ignited, apparently by a bonfire which two boys had started, and the resulting explosion took the lives of both. The head was ripped from the drum by the blast.

than a full one. Furthermore, all volatiles do not vaporize at the same temperature; gasoline vaporizes at —40 degrees or above, while kerosene vaporizes at 100 degrees or above, hence gasoline is relatively more hazardous.

This temperature at which a volatile liquid gives off vapor sufficient to form an ignitable mixture with the air near the surface of the liquid is known as the flash-point of the liquid. Some people who wouldn't think of attempting to kindle a fire by pouring gasoline into a stove will use kerosene under the impression that it is safe. They will, that is, until some day when the stove happens to contain some live coals. Then the question ceases to be one of relative vaporizing temperatures of volatile liquids and becomes one involving a choice of undertakers.

The Personal Equation

Up to this point we have attempted to briefly cover the most important basic natural or accidental causes of fire: radiated heat, mechanical friction, electricity, chemical reactions and spontaneous ignition. But we have omitted one of the most important factors—certainly the most important contributing factor, the *genus homo*—in other words, the guy who "didn't know no better." And I don't mean only the fellow who lights his pipe while the filling station attendant is filling up his tanks, or the poor devil who wants one last cigarette before dropping off to sleep after a hard day's work.

Take building contractors for example; for every one of them who can build a fireplace that will heat up a room, you can find five who will build fireplaces that will burn down a house. Brick masons place flue holes so close to ceilings that adequate clearances of smoke pipes are impossible, but in many cases that makes little difference because the furnace is set up against the basement ceiling anyway. And when it comes to electrical wiring, unless in a community where the adequacy provisions of the Electrical Code are enforced, the future use of multiple sockets, extension cords and plugged fuses are practically assured by an attempt to keep down the original cost through elimination of convenient outlets and special circuits for appliances. Use of matches and candles in dark closets are almost guaranteed by failure to provide lights in such locations.

Many a business man, astute as he may be in his merchandising or manufacturing, will fail to provide extinguishers because the credit in his insurance rate won't pay for them. He will allow his employees to pile waste paper and trash in the open in the basement and then permit the painters to toss the floor sweepings, including, perhaps a lighted cigarette butt, onto the pile. He cannot see that a tightly constructed room for such materials, with a sprinkler-head supplied from his domestic piping, would eliminate a very serious hazard. He is willing to lend his assistance toward a bigger and better fire by allowing his fire doors to become worthless, to be blocked open and to be without proper fuse links or tackle. He will fail altogether to instruct his employees in fire safety or to enforce safe practices; more likely than not if unsafe practices on the part of employees are called to his attention he will tell the instructor," you give 'em hell." He will even go home at night and leave the whole business in the care of an incompetent or uninstructed watchman — a man who wouldn't know what to do with an emergency if one came around.

The Fire Department

Although the subject, of this paper deals with the starting of fire, and how to make 'em bigger and better, it may not be amiss to comment further along that line of thought. In that respect both insurance people and fire department may well have a hand.

There may well be mentioned the friction of a large insurance policy against a thin pocketbook, which has been the basic cause of many large and expensive fires. Limiting of insurance protection well within sound insurable values, and by that I mean either physical or commercial value, whichever is the lower, is plainly the duty of the insurance agent. Furthermore, insurance properly should be denied the person who is not willing to keep his property in reasonably good condition in respect to recognizable fire hazards; that is manifestly in the public interest. The skirts of the insurance business are not unsoiled on either of these counts.

Many fires have been more spectacular than circumstances demanded because of the failure of fire departments. Many a sprinkled property has been lost because the fire department failed to help the sprinklers by pumping into the sprinkler systems or even went so far as to rob the sprinklers by taking suction from nearby hydrants, not to speak of those instances where the sprinklers were shut off before the fire was extinguished.

Failure on the part of department officers to know what they should know about hydrant locations and water supplies have allowed many a fire to get beyond the point where extinguishment was possible. Most of these derelictions are the result of lack of advanced preparation, of failure to fight the big ones before they occur. Many are the indirect result of failure to inspect property. Some are the result of poor judgment in fire fighting, such as where the contents of a smoke-filled furniture store were thoroughly deluged before it was found that the smoke was coming *not* from a fire inside the building but was being drawn in through a ventilator from a trash fire outside in an alley. Then there was the rural barn fire in Pennsylvania to which 54 pieces of apparatus responded; in the resulting melee, two pieces of apparatus were wrecked and one fireman killed, while the barn became a total loss because of lack of water.

And so we see that when we talk about how fires start, or how big ones are made out of little ones, we find there is quite a lot of ground to cover. That is why the job of preventing fire loss is such a big one, why it is so interesting and why it is so important that we appreciate all its ramifications. It is a job that challenges a man's imagination and ingenuity.

Kerosene Stoves Outlawed

The outlawing of portable kerosene stoves in Baltimore, Md., was made a part of the Fire Prevention Code of that city on May 6. The code will not be ready in printed form for passage for some time, and after it is printed, it is that plan of the City Council to hold it on third reading "for a week or two" so that all interested persons may have an opportunity to read it.

The proposal reads: "The use of portable kerosene stoves or other similar fuel-burning portable appliances for heating or cooking shall be prohibited two years after the date this Fire Prevention Code becomes effective."

It was adopted only after much opposition from various quarters who wanted the stoves, in widespread use in the poorer sections, to be continued lawful if approved by the buildings commissioner or health commissioner.

The Fire Department would not back down on its stand to eliminate the stoves, citing some 177 known instances in the past five months where the appliances had caused fires, with the cause of many other fires believed to be the result of careless handling of kerosene stoves.—Otis Smith.

Five Killed in New York's Second Aircraft Disaster

Fire Forces Quickly Control Three Small Fires Set by Plane Crash which Takes Five Lives

A STAFF REPORT

FOUR Army men and a W.A.C. Lieutenant were killed at 8:08 P.M. on May 20 when a twin-engined C-45 Beechcraft Army plane, bound from Smyrna, Tenn., for Newark Airport, but lost in a fog, crashed into the fifty-eighth floor of Manhattan's fourth tallest building, the 70-story Bank of Manhattan Building at the northeast corner of Pine and William Streets.

A hole ten feet in diameter was knocked in the building. One of the plane's engines went through into the office of the Atlas Corporation, where the bodies of all the victims were found. The nose of the plane remained in the hole it made, one wing still attached. The other wing fell into Pine Street. The other engine flew out in an arc which carried it to the roof of a twenty-three-story building at 44 Wall Street. Here it went through the sheet metal covering of an air duct about five feet-by-five and down the duct to the cellar, where it started a small fire. Parts of the plane which were caught on the twenty-third floor setback and on the ninth floor setback were burning. These were the only fires resulting from the crash, although it is said the plane drove into the building with great force, and neither the gasoline nor motors had been cut off at the moment of impact. The pilot, it is said, was drawing gas from an auxiliary tank, and the fuel supply was low.

Fortunately the plane did not burst into flames, and there was no fire damage to the reception room of the corporation into which bodies and bits of wreckage were pitched. All told, the fire department had to cope with only three fires, all inconsequential. These were at the foot of the airshaft of the adjoining building, where one of the motors plowed through an air-duct and ignited a gas line; part of a wing on fire at the ninth floor, and a section of fuselage burning on the twenty-third floor setback of the Manhattan Building itself.

Most difficult task for the responding firemen was to locate the seat of the trouble, and get to it. From the evidence of building employees and others and by 'trial and error', they determined the point of greatest hazard was the fifty-eighth floor. The first crews under command of John J. Lowery of the First Battalion had to toil up many flights of stairs as well as use elevators, before reaching their objective. Here they encountered heavy concentrations of gasoline fumes in the pitch dark, and the Chief ordered that no lights be switched on until the area was ventilated.

At that stage firemen had no way of knowing how widely or heavily the

Where Army Plane Crashed into Manhattan Building

Left: Structural damage was surprisingly light when fog-bound plane struck skyscraper, but all occupants of plane were killed. Firemen permitted no lights in fume-filled area until ventilation had been accomplished.

Right: Plane wreckage in office of Atlas Corporation on 58th floor of Manhattan Bank Building, Wall Street, in which four men and a WAC lieutenant died. Fortunately, fumes from plane's fuel tanks failed to ignite wreckage and furnishings.

gasoline had penetrated the structure. There appeared imminent danger of an explosion which, had it occurred, might have cost the lives of many firemen.

Lines were stretched from the building's standpipe system, as a precaution, at the upper level, while firemen tackled the reported fire in the cellar of No. 44 Wall Street. Here the plunging motor had ruptured a pipe of the ammonia system and ignited a broken gas main. Lack of material for the fire to feed upon, plus the effective work of the fire-fighters, quickly controlled this blaze. Other firemen found no difficulty in knocking out the other two minor fires.

Fire alarm headquarters received the first alarm from Box 45, Wall and Nassau Streets, at 8:11 P.M. Box 43 at William and Pine was received at 8:12 but not transmitted by Supervising Dispatcher Cruse who, incidentally, was in charge of Manhattan fire alarm telegraph bureau on July 28 when the Empire State Building catastrophe occurred.

At 8:12 P.M. a telephone call from a civilian notified the dispatchers that an airplane had struck a building in Pine Street near Nassau, but companies were already en route.

The first-due companies were Engine 10 and Ladder 15 with Battalion Chief Lowery of the First. Engine 10 was in charge of Lieut. Leslie Murrell and Ladder 15, of Lieut. Arthur Kempf. Deputy Chief Joseph Zeigler of the First Division and Chief Kirschenheiter of the Second Battalion also responded on the box.

Although no additional alarms were sent in, special calls brought Rescue No. 1 at 8:31 in charge of Lieut. Vail and Searchlight No. 1 at 8:53 P.M. The other companies regularly assigned to respond to the box were Engine 4, Lieut. Handschur; Engine 32, Capt. Kiffer; Engine 6, Capt. Norwalk, and Ladder 10, Lieut. Sullivan.

Fire patrolman, in charge of Chief Espy and Capt. Pritchard of Patrol 2, spread seven covers in the basement of No. 44 to protect motors and machinery from water and prevent it leaking into a large safe deposit vault.

Acting Chief in Charge of Department, Frank Murphy, was notified of the crash by radio and was early on the scene, as was Fire Commissioner Frank Quayle. Fire Marshal Brophy, also reporting early, immediately began an investigation in which he was assisted by Asst. Marshals Gribbon, Fitzpatrick, Scott and Reilly. Chiefs Irwin and Jones in charge of apparatus and shops also reported, with other fire department officials.

Manhattan's Fourth Tallest Building Target for "Lost" Plane

Dark arrow points to 58th floor of 70-story Manhattan Bank Building where Army plane tore into building. Light arrow indicates 12th floor setback parapet where wreckage fell.

Building Nearly Empty at the Time

The Manhattan Bank Building, whose first six floors are occupied by the bank, normally has about 5,000 occupants during business hours. About 500 persons were in it at the time of the accident, none of them fortunately, in the Atlas Corporation's offices. Some occupants of the structure, as well as night workers in other nearby buildings, heard the crash and saw bits of flaming wreckage dropping. Witnesses as far away as Brooklyn reported seeing the explosive flash as the plane crashed. Spectators came in large numbers, inspired doubtless by the early and repeated radio broadcasts of what was reported initially and erroneously to be another Empire State disaster. Over 100 additional policemen and detectives were called to control the crowds which packed the area, normally as deserted as the desert at that hour.

Although, following the usual procedure, Army officials declined to give out information concerning the plane or its flight, it was disclosed that on the night of the crash there was only a 200-foot ceiling and three-quarters of a mile visibility at Newark Airport, when the Army Beechcraft was cleared for approach and landing. That the pilot was totally unaware of his position and that he was violating explicit Army instructions for its pilots—issued after the B-25 crash at the Empire State Building—not to fly over Manhattan at less than 2,500 feet altitude is evident. It is reported, ironically enough, that Lieutenant Hall, one of the victims, was a member of the inquiry Board that investigated the Empire State crash.

All the evidence of eye witnesses testifies to the fact that the plane was low, coming out of the southwest, at high speed, and the pilot was apparently unaware of his danger until too late to take safety measures. The prompt response of fire, police and medical forces is also universally praised. It is said by some that had the accident required the response of additional forces of fire and other emergency forces, their work would have been seriously handicapped by the milling crowds of curious.

Wreckage of Plane Threatens to Fall from Building Setback

Part of crashed C-45 Beechcraft Army plane draped over 12th floor setback of Manhattan Bank Building. Firemen quickly controlled fires that followed tragic crash.

Police blocked off street areas where bits of wreckage threatened to fall, or where oil had fallen. Smoking was prohibited in the Manhattan and adjoining Buildings, and in the block in which they are situated. Police also had their hands full attempting to retrieve the wreckage, as "evidence", from the souvenir hunters who searched the neighborhood for it, locating some of it a block distance, at the Sub-Treasury Building.

Pilot Mistook East River for Hudson

From reports, it is believed the pilot, bound for Newark Airport, mistook the East River for the Hudson and thought he was over New Jersey. Coming north from Smyrna, near Nashville, Tenn., after a flight from Lake Charles, La., the pilot radioed the Newark control tower for permission to land by instrument. His first message was received at 7:56 P.M., and permission was granted. His second message came at 8:08 P.M., after he had apparently overshot the field, and a few seconds later he struck the building.

As a result of the crash, Fire Commissioner Quayle is said to plan conferences with Mayor O'Dwyer of New York on the advisability of local legislation fixing the altitude of planes over the city "to make it impossbile for a recurrence of this type of crash." "In both the Empire State crash and the Pine Street crash," he said, "it was fortunate that the thoroughfares were not populated to any extent at the particular times of the accidents. Had it happened during business hours, it is reasonable to assume that there would have been a great number of casualties."

TRUCK BLASTS AND FIRE KILL THREE WESTPORT FIREMEN

Chief and Ex-Chief Succumb to Burns Received when Truck Contents Explode

By Tom Magner

Editor's Note: The fatal accident described by Tom Magner, FIRE ENGINEERING'S Connecticut correspondent, occurred almost coincident with the publication in the April FIRE ENGINEERING of the article on traffic hazards, captioned "Increase in Traffic Accidents Threatens the Fire Service." That what to all intents and purposes was an average commercial truck fire could bring death to four men, including the driver of the vehicle, and injuries to eight others (one of whom is at this writing on the "danger" list) attests the warnings covered by our earlier message.

The conditions involving this tragic accident were not unusual or exceptional. The trailer-truck involved in the crash was similar to thousands that travel the Boston Post Road, most heavily traveled highway in the country. The accident, which preceded the fire and explosions, was not unlike others reported almost daily. The fire department responding to the alarms went to work as have countless other departments before it in like emergencies. But this time the results were different.

If this particular case offers a lesson to the fire service it might be this: *always expect the unexpected—and play it safe!* Even with most extreme caution, fate will continue at times to deal to fire fighters from the bottom of the deck, especially where for one reason or another, they have no way of knowing the hazards they must encounter, until the "cards are dealt," and it is too late.

THREE members of the Westport, Conn., Fire Department are dead as a result of a blast and fire, following a traffic mishap to a trailer-truck on the heavily traveled Boston Post Road on May 2. The dead are Fire Chief Frank L. Dennert, Fireman Francis P. Dunnigan, and John G. Gallagher. Dunnigan was a former Chief of the Westport Fire Department.

The driver of the truck, John Lowell of Seeonk, Mass., also met death from burns and injuries following the crash. In the Norwalk, Conn., hospital at this writing are several firemen, one of whom Dominick Zeoli, a member of the paid force, is on the danger list but is expected to recover. Those who suffered injuries, marked "serious to fair" are: John J. Saviano, Irving Sametz, James Powers and his brother, George, all volunteers, and William Krause, a 16-year-old bystander. Dr. Frank Krak, another volunteer was hospitalized but released the next day after treatment.

The fire occurred immediately after the carrier, owned by the Hemingway Brothers Express of Providence, R. I., bound for that city, went into a skid, left the highway and, out of control, rammed into an 18-inch stone wall and tree. The trailer jack-knifed at the impact and came to rest at a right angle, with its rear facing the highway. Its gas tank shattered, the fuel quickly ignited and blazed up to engulf the driver, who is reported by Chief of Police John A. Dolan, an eye witness, to have struggled out of the cab where he collapsed. He was removed from the fire area by the driver of a car following the truck and rushed to Norwalk Hospital where he died a few hours later, without being able to account for the accident which, according to Dolan, was due to the blowing of a front tire.

When Westport firemen arrived the truck was burning but its nature and extent was not fully determined. According to Captain Harold Shippey, who assumed charge of the fire department as acting chief after the fire had partly crippled the organization, a 2½-inch line was stretched from the nearest hydrant and firemen under command of Chief Dennert attacked the fire at the rear of the truck. He reports that there were two explosions, the first through the rear door and the second, and more severe, through the top of the truck at the rear end. The second blast, which caught the men, came when the fire was believed by some to have been under control. It sent a sheet of flame about twenty-five feet long and twelve feet high across the Post Road.

Lashing at firemen and some spectators, the deadly jet whipped west for a distance of about thirty-five feet and Fireman Dunnigan and others, manning the nozzle were caught in the "V" formed by the flames.

According to Acting Chief Shippey, included in the truck's cargo was a quantity of black vulcanizing rubber cement which investigation (later conducted by the I.C.C.) showed to contain an 88.02 per cent gasoline content. The sticky, flaming rubber compound scattered by the blast adhered to the clothing of the firemen and the flames literally followed them as they flew from the fiery onslaught.

Fireman Dunnigan lived only a short time. Spectators sought to wrap coats around him as he ran along the road frantic with pain, and his entire body in flames. Chief Dennert, who was also sprayed with the hot liquid, succumbed on May 6, following the death of Fireman Gallagher who lived only fourteen hours after the explosion.

Chief Dennert, who was 55, had headed Westport's twelve man paid-and-volunteer department since 1942 and had been a member of the paid department for ten years. Dunnigan, 53, at one time chief of the department, with Gallagher, and Zeoli, who was critically injured, were all on the regular force. The casualties deprived Westport of one-third of its regular active fire fighters.

April Fire Losses Up

Fire losses in the United States in April were estimated at $52,153,000, an increase of $14,203,000, or 37 per cent over losses in April, 1945, it was announced recently by W. E. Mallalieu, General Manager of the National Board of Fire Underwriters. Last month's losses were 2 per cent less than the record-breaking total piled up in March, 1946, when losses reached $53,252,000, the highest monthly loss in 16 years. The National Board's estimates are based on incurred losses reported by member companies, plus an allowance for unreported and uninsured losses.

April's losses were the highest for any April since the National Board of Fire Underwriters began tabulating monthly losses. The previous April high was $43,822,000, recorded in 1932.

Estimated losses for the 12-month period ended April 30, 1946, totaled $497,153,000 as compared with $438,004,000 for the similar period ending in April, 1945.

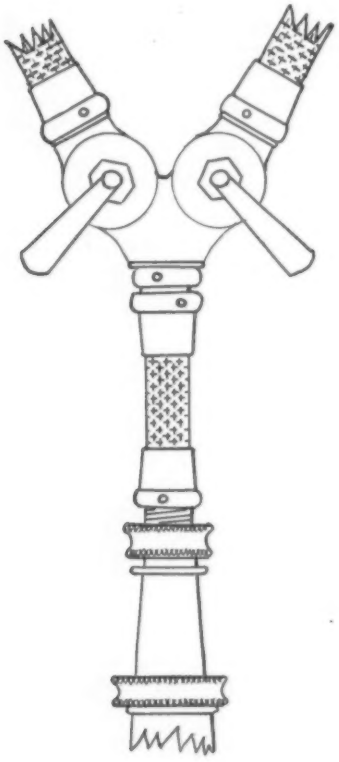
Three Firemen and Truck Driver Die in Municipal Traffic Accident

Three members, including the chief and an ex-chief of the Westport, Conn., Fire Department, died following fire and explosion attributed to vulcanizing compound.

Short Cuts and Gadgets

FOR A FLEXIBLE WYE CONNECTION

"Short Cuts and Gadgets" has no more energetic contributor than Henry T. Hanson, of Maynard, Mass., whose latest time and trouble-saver is pictured and described herein.



According to Brother Hanson, here's one for departments that use a 1½-in. wye to connect leader lines to their regular 2½-in. threaded nozzle tips. He opines that it will be found advisable to leave a short section of about a foot, of 1½-in. hose permanently connected to the inlet of the wye, as pictured. This will make the job of hooking-up the leader-line layout a simple one-man operation, effecting a saving in manpower and time during the first few most valuable minutes of fire-fighting operations.

* * *

CARRY THE ENTIRE "NEST"

A mid-western volunteer fire department makes it a practice to attempt to save time and trouble in laddering a structure, by having truckmen remove and carry in to the fire, an entire "nest" of bed ladders from its service truck.

In most service trucks, two or three ladders are "nested" in tiers or groups and in pulling out the longer (usually the lower in the "nest") one or two shorter ladders also come out with it. Instead of placing aside those that may not immediately be needed and carrying in the single ladder, all two or three are taken on shoulders to the structure to be laddered. Thus there is ready for almost immediate action, a 28- or 30-ft. straight ladder, a 12 or 16-ft roof ladder and possibly a short, straight or 12-ft. extension ladder.

* * *

TO STOW BOOSTER AND GARDEN HOSE

Rubber hose should not be hung on spikes or pegs because the sharp bends tend to crack it and shorten its life. We found one fire company where extra coils of such hose were hung neatly and orderly—and safely by simply utilizing a bucket, which was securely fastened against the wall and painted as a "bracket" and over which the hose was looped. The bucket formed a large curve over which the hose hung without any short kinks.

No doubt a bit of stovepipe, fastened over a strong bracket would do the same trick.

* * *

The Old Timer Says—

How do you know when a wall's dangerous at a fire? Well, son, one of the surest signs of danger is when you see water or smoke comin' through between the bricks. That's a tip-off to clear off!

* * *

FOR FIGHTING GRASS FIRES

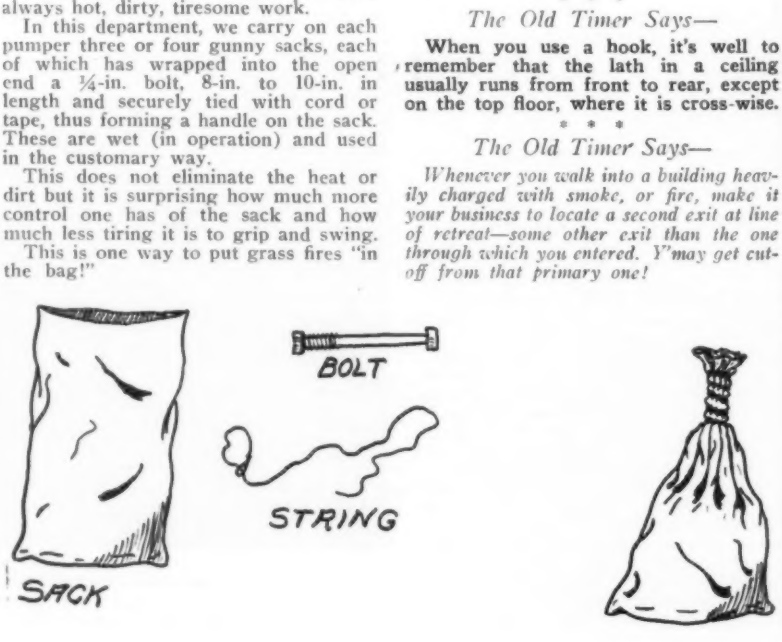
From C. W. Tucker, Fire Chief, Huntertown Volunteer Fire Company, Huntertown, Ind., comes this suggestion for fighting grass fires. Chief Tucker says:

We have all had experience in fighting grass fires with improvised tools such as sacks, brooms, rakes, etc. It is always hot, dirty, tiresome work.

In this department, we carry on each pumper three or four gunny sacks, each of which has wrapped into the open end a ¼-in. bolt, 8-in. to 10-in. in length and securely tied with cord or tape, thus forming a handle on the sack. These are wet (in operation) and used in the customary way.

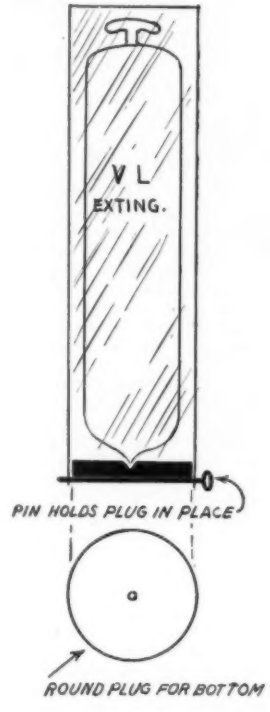
This does not eliminate the heat or dirt but it is surprising how much more control one has of the sack and how much less tiring it is to grip and swing.

This is one way to put grass fires "in the bag!"



TRANSPARENT EXTINGUISHER HOLDER

Not particularly new, this idea sent in by H. B. Morris, Fire Chief, Celanese Corp. of America, Celco Plant, Narrows, Va., but well worth passing along to the service.



The idea contemplates a simple case, made from any transparent plastic such as Lucite, Vamlite, Tenite or the like, in which the ubiquitous vaporizing liquid extinguisher can be suspended and contained, ready for instant use, but safe from prying hands.

* * *

The Old Timer Says—

When you use a hook, it's well to remember that the lath in a ceiling usually runs from front to rear, except on the top floor, where it is cross-wise.

* * *

The Old Timer Says—

Whenever you walk into a building heavily charged with smoke, or fire, make it your business to locate a second exit at line of retreat—some other exit than the one through which you entered. Y'may get cut-off from that primary one!

ANOTHER MANSION FIRE PROVES HEAVY LOSSES MAY BE EXPECTED

Half Million Damage in Rubel Mansion The Result of "Things That Went Wrong"

A Staff Report*

THE old saying that most fires that assume large proportions are not primarily the result of a single error, but rather the outcome of a number of things that go wrong, found fact in the destruction of the Samuel Rubel mansion near the Village of Roslyn Harbor, Long Island, N. Y., on April 10.

The three-story, Georgian-type frame structure contained forty rooms and was located on a 50-acre elevation overlooking Northern Boulevard, west of the village, and was entirely framed by trees and shrubs. The house was assessed at $250,000 and was insured for $301,000, with personal property and fur insurance of $150,675. Conflicting reports as to the value of the contents were responsible for the wide variation in total loss estimates, which ran from $750,000 to $3,000,000. According to current estimates, the loss will approximate the insurance coverage: $450,000.

In addition to a $100,000 organ, the 40-year old mansion was filled with costly furnishings and the family reportedly had jewelry valued at $500,000 on the property. Most of this was recovered from the ruins, it is said.

Caused by Ignition of Vapors

The fire originated in the first floor dining room, the walls of which were walnut panelling, painted over. Four men were working in this room with paint-remover, benzine, turpentine and hand-scrapers, as part of a costly redecorating contract. A considerable portion of the wall was saturated with volatile liquids and it is said vapors were ignited when one of the men either threw the electric light switch or hit the switch plate with his scraper. The entire wall suddenly ignited and flames spread rapidly. The flames, blown by a breeze from an open window against a drop cloth, and heavy draperies hanging in the doorway, which immediately ignited, furthered its extension into the main hall and stairwell.

From the dining room the fire spread to the drawing room and then the music room, where the organ and two pianos were destroyed. The library, with costly volumes, then was enveloped and within a few minutes the entire center section and one wing were involved.

Painters Futile Fire Fighting Efforts Cause Delay

The painters attempted to put out the fire, using first-aid fire extinguishers which they had placed in the dining room, but which were reported ineffective. Fed by the paints and oils, the fire drove the men out, and once it had worked its way into the frame partitions, it found unrestricted avenues of extension. There were no fire stops.

First Alarm By Telephone

The first alarm was received by telephone at Roslyn Fire Headquarters at 2:30 P.M. The party calling stated there was a fire on the Rubel Estate. Inasmuch as it was not specified as a building fire, the procedure for handling brush fires was followed, resulting in the dispatching of but one hose truck from each company to the scene.

The first arriving truck was that of the Roslyn Highland Company. This complement reached the main gates of the estate only to find them securely locked. Proceeding to the service gate, they were met by an employe, who said there was no fire on the estate, although the firemen could observe smoke from their location. In view of this fact, they continued and upon reaching the main residence found the south central portion of the house fully involved by fire.

A second alarm was immedately transmitted through a police radio car, also on the scene. Meanwhile, a pumper had responded and this unit is said to have encountered difficulty in getting into position due to the number of parked automobiles belonging to the painters. A number of these cars had to be removed. A call was then dispatched to the Glenwood Fire Department for assistance but that force was out to a brush fire. The request for help was then relayed to Sea Cliff, which promptly responded with one pumper and a hose truck. Glen Cove, another community near Sea Cliff, dispatched an aerial ladder. As soon as Glenwood firemen returned to quarters from fighting the brush fire they responded with a crew and hose truck. Forces from Manhasset and Albertson were located in Roslyn firehouses to cover up.

Firemen Fight Losing Battle

There were two hydrants within the Estate from which fairly satisfactory water supply was obtained. In addition, two lines of 1,400 feet each were stretched to a pumper outside the main gate on Mineola Avenue. All told, six 2½-inch and one 1½-inch lines from four pumpers were used, but it was 5:00 P.M. before the fire was brought under control, after which wetting down continued until 11:50 P.M. when apparatus returned to quarters, leaving five men with 2½-inch lines standing by until daylight.

The blaze in the dwelling communi-

Fire Destroys Rubel Mansion with Half Million Loss

Delayed alarm . . . ineffective use of first aid fire appliances . . . a simultaneous fire . . . and other mishaps combine to handicap volunteers of several Long Island communities to halt destructive blaze.

*This is the second disastrous mansion fire to occur in within the past few months, the other being that which caused loss of over $1,000,000 to the Guggenheim home in Washington, D. C., and described in the March issue of FIRE ENGINEERING.

A View of the Ruins of the Rubel Mansion Fire

cated to the trees and brush, starting a fire that spread down the hill, threatening a building of the Long Island Lighting Company on the Boulevard. This fire was halted fifty feet from the structure, after the company sent emergency crews to cut down trees and underbrush in its path.

G. I.'S IN GERMANY AUGMENT FIRE PROTECTION IN U. S. ZONE

No Attempt to Build Up Civilian Fire Services to Pre-War Strength

By Emmons E. Douglass*

THE primary duty of the Public Safety Branch of the Office of Military Government (U. S. Zone), is the supervision of all public safety services in the U. S. occupied zone of Germany.

The actual work of these services is not being taken over by Americans but is rather being supervised by the Public Safety Branch, with German personnel actually engaged in performing the functions of the service.

Several changes in the ordinary set-up of the German fire service have been necessary. Formerly the fire service was an agency of the police, thus it was inevitable that it became rather directly under the Nazi rule. It is, then, necessary to remove those members who were known Nazis and replace them with non-Nazis or those persons known as "nominal" Nazis. In addition, the fire service is being completely separated from the police.

The Military Government is not attempting to create, or rebuild a German fire service of the highest efficiency. It is rather assuring itself that there will be a minimum fire protection for the general public and reinforcements for the military fire service when and if it needs aid.

The future aim of military government in the field is to complete the plans mentioned above. At present there is a scarcity of qualified fire protection men in the U. S. Zone and a call has been made to all members of the Army with such experience as would qualify them for this work. The offer being made is that of discharge from the Army and employment in a civilian status with the Army at a pay level that may be either $5,500 or $7,000 per year, according to rating by civil service. (Pay figures are approximations).

The positions to be filled in each of three areas are: Head of Fire Section, Public Safety Branch, OMG, and Staff Member, Fire Section, PS Br, OMG.

The duties of these positions are expected to encompass the following:

HEAD OF SECTION:

1. Reorganization and control of all fire protection and arson investigation agencies.
2. Complete de-militarization of fire service as well as "denazification."
3. Administrative and technical supervision of German fire protection. Such supervision will be exercised by written directives, conferences, and inspections of German equipment and facilities.
4. Coordination with other MG agencies with view to securing additional or replacement equipment.
5. Investigation of fire hazards, fires, and arson attempts wherever allied interests are involved or whenever necessary to make a check on German agencies.
6. Advise head of Finance Bureau of MG in the handling of fire insurance companies and property and assets of fire fighting organizations.

THE STAFF MEMBER:

1. To a lesser degree exercise the same duties as those of the Head.
2. In addition he will see that regulations that have been promulgated by the Head are carried forward, and enforced.
3. Will have closer connection in the field having contact with all fire organizations in the area and complete familiarity with the location, amount, and description of fire equipment in the area with view to advising the Head as to proper distribution of this equipment to insure maximum protection.

*Tech. 3d Class, U. S. Office of Military Government.

Two-Way Radio Being Tested for Taxi Used in Philadelphia

Tests that may ultimately have far-reaching effects in municipal communications were started in May in Philadelphia, by the Yellow Cab Company and Raymond Rosen & Company, RCA Victor distributors in that city.

They mark the first two-way radio communication for taxicabs in the city's history and their results will determine how widely two-way radio may be utilized in the cab company's 1,172 taxicabs and 15 Cabulances. After completion of the tests with the initial mobile unit, according to Clewell Sykes, president of the Yellow Cab Company, the radio will be installed in about 25 of the automobiles used by the company's street supervisors. Following that would be the installation of mobile equipment in 50 or more cabs which would always be available for emergencies. "It is entirely possible," Sykes said, "that eventually every cab in our fleet will be equipped with two-way radio."

Rated to provide coverage within a radius of about 30 miles, the equipment is expected to permit communication between all Yellow Cabs operating in the Philadelphia area, including several miles of surrounding suburbs as well as the city proper. According to cab officials, the use of two-way radio is expected to revolutionize the dispatching of taxicabs in the city. It will enable cab dispatchers to keep in constant communication with taxicabs and to dispatch empty cabs long before they reach the telephone call boxes maintained by the company. Emergency calls may be filled much more promptly in all kinds of weather, it is said, and dead mileage is expected to be greatly reduced. Two-way radio will also enable the driver to report immediately to company headquarters in the event of a breakdown, an accident or a holdup. Of importance to the fire service is the fact that by means of these installations on the company's cabs, which will daily be covering many miles of city streets, fires may be more promptly reported to the fire department and, in an emergency. the cab itself may be used as a pivotal communication facility to further fire fighting operations, through the company's local radio station.

Other municipalities are also experimenting with radiotelephone service for taxicabs and trucks, utilizing types of equipment very similar to that which is either already in vogue, or is expected to be used on fire department apparatus and vehicles.

N.Y.F.D. Gets a Field Kitchen

The firemen's union in New York has given the NYFD a field kitchen which will roll on all third alarms in the city and to special calls. The firemen's organization will provide the coffee and food. Arrangements have been made with Horn & Hardart (Automat) to furnish the "grub" from its main warehouse located a few blocks from Engine 54 in West 47th near 8th in midtown Manhattan. The rig has its own call number in fire alarm telegraph code. It is 9-Box No.-94. The terminal 94 is the number of the New York Firemen's Local in the A. F. of L.

The vehicle was purchased from the Brooklyn unit of the American Women's Service organization by the firemen's association for $800 and with only 22,000 miles on the speedometer. Fire Commissioner Frank J. Quayle in accepting the gift for the NYFD had the car repainted at the Fire Dept. Shops. It is a six cylinder Ford, built in Detroit in 1942; 5850 pounds; 60 h.p. and in good condition.

OBEY ALL TRAFFIC RULES
Frank J. Quayle
Commissioner

is lettered right over the inside of the windshield for the chauffeur to see every time he raises his head. There are a couple of hundred paper cups in addition to hundreds of wooden spoons. The original kerosene burning urns have been substituted with several five gallon thermos jugs. Up to this writing—one week after the kitchen was put into service—the rig did not have a run. Last year there were 40 multiple alarms above a second alarm.

JERRY DALY

Epidemic of Alarms Hits Baltimore Department

Several tugs and other boats were partially burned in a 4-blaze blaze in Baltimore, Md., on April 20, climaxing a busy day which saw 101 alarms of fire, including a 6-alarm warehouse blaze.

The day began with the 6-alarm fire at 6:26 A.M., when fire was discovered in the Woodbury Dist. Co., a three-story brick building in the heart of the city. Apparently starting in the middle of the second floor, it burned all interior and exterior woodwork, stairway and partitions on the second floor and rear of the main floor, then extended to and caused complete burning of the roof.

Before it was halted, the blaze had extended to the roofs of three adjoining buildings, causing partial loss to each. Stocks of canned foods were destroyed in the blaze.

Nineteen engines, four trucks and a water tower responded to the six alarms, under the direction of Chief Engineer Howard Travers. Schedule of alarms was Box 2128 Gay and High streets at 6:26 A.M., Signal 2-2 at 6:30, Signal 3-3 at 6:35, Signal 4-4 at 6:36, Signal 5-5 at 6:39, Signal 6-6 at 6:52, and the Recall Signal, relieving companies of further transfers and placing the box back in service was sounded at 7:49 A. M. An estimated 299,050 gallons of water was used from water department hydrants.

Twelve reserve pumpers and one reserve truck were placed in service at vacant houses by details of men of the off-shift soon after the sixth alarm had been sounded, in accordance with the policy of holding transfers to a minimum with the use of the spare apparatus.

Baltimore's 95 fire companies were kept busy throughout the day, responding to all parts of the city for field fires which caused the 101 alarms in 24 hours.

At 3:55 P. M., a rubbish fire on a vacant lot in the 1400 block of McComas St. in the heavy industrial section of Locust Point near Fort McHenry got out of control. Before it was halted, it had caused partial burning of 13 tugs, scows and other smaller craft.

First extending to water front property of the Martin Imbach firm, it partially burned a wharf, tug boat, derrick boat, an abandoned wooden ship, three wooden scows, two jack boats, one pile driver, one dredge and wooden pilings

Then the blaze extended to the Patapsco Dry Dock where partial damage resulted in a mast on a steel tug, and decking on three wooden barges.

The first alarm was sounded at 3:35 P.M. from Box 637, Wells and Andre Sts. A second followed at 3:47, and a fourth was pulled at 4:30 P.M. The Recall Signal did not come until 7 P.M.

Fireboats 16, 39 and 48 responded to the four alarms and Fireboat Engine

N. Y. Fire Dept. Photo by Hellriegel

New York Fire Department's New Canteen Field Kitchen

N. Y. Fire Dept. Photo by Hellriegel

Fire Commissioner Frank J. Quayle Is the First Customer. The Counterman Is Fireman Walter Beatty. Left: Captain W. R. Beebe and Fire Chief Frank Murphy. Behind Mr. Quayle Is Fireman John P. Crane, President of the U.F.A.

No. 49, a converted subchaser, was special called to the fire at 4:03 P.M. to operate in shallow water.

Fourteen pumpers, four trucks, a chemical (foam) company and four Battalion Chiefs rolled on the water front blaze which was fought under the direction of Acting Chief Engineer Charles H. Knapp.

Eight pumpers drafted from docks near the blaze, while Engines 1 and 2 used hand lines from the boats. The report estimates that 1,225,601 gallons of water was used.

With as high as 51 out of 95 companies responding to or returning from fires at the same time on this date, many companies were rolling on the first alarm to boxes on which they were not scheduled to move until a sixth alarm.—Otis Smith.

Blast Sets Freak Oil Fire

Employes of a sub-contractor, engaged in laying a new oil pipe line along the side of Swedesford road near the Pennsylvania Golf Club's buildings in Frazer, Chester County, Pa., set off a charge of dynamite which broke an old 10-inch oil pipe line, the location of which was insufficiently marked on the surface to warn the trench-diggers.

Oil from the ruptured main burst into flame as it flowed across Swedesford road toward the Golf Club's structures. The flaming fuel swept along the road to the base of the pro' shop and then over the highway to a vacant dwelling, both of which were ignited and destroyed. It finally cascaded down grade to a branch of Valley Creek, which cuts through the golf course.

In its path it burned down telephone and electric lines, ignited trees, and engulfed a construction steam shovel and mobile air compressor. A shift in the grade saved the main clubhouse and the nearby home of a club employe.

The oil ignited from a torch which workman had lighted near the break about an hour earlier. When the blazing oil set the golf shop afire, employes called the Malvern Fire Company, which is nearest the scene. However, the shop and house were almost destroyed before the firemen arrived. Additional help was summoned from Paoli, Downingtown, Wayne, Berwyn and Lionville when the flaming oil reached Valley Creek, as it was feared it might carry downstream to Paoli. An emergency call was also made to a West Chester firm for (foam solution) and 500 gallons of this were dispatched with appliances for its use. This enabled firemen to control the fire on the surface of the Creek. Waetr, uncontaminated by the flowing oil, was pumped else where from the creek to fight the ground fires.

The golf club grounds and building are owned by the Pennsylvania Railroad which estimated damage at not over $15,000.

Two Views of the Frazer Freak Oil Fire

Top: Where dynamite blast started river of fire. Oil from broken main, ignited by worker's torch, flowed with the grade, consuming nearly everything in its path. Note layer of foam on stream bed. Bottom: Wreck of golf shop and house after fire. A "Vesuvius" of flowing oil ignited trees, structures, contractor's equipment before finally being controlled by firemen of six communities, aided by "Navy" foam, in Chester County, Pa.

Must Have Permit for Walkie Talkies

Since it became known that Army surplus walkie-talkie radio equipment can be purchased from retailers, Fire Engineering has been asked about the possibilities of using this equipment for fire fighting operations.

To those interested in the subject—and they are many—it should be pointed out that although you can buy a walkie-talkie in some stores, you cannot legally use one. This applies equally well to the fire service as it does to the general public.

Under the communications act, no person may operate a radio transmitter without obtaining a license from the Federal Communication Commission. The F. C. C. has warned that use by the general public of such Army surplus walkie-talkies might bring $10,000 fine or two years imprisonment, or both.

It is said that no licenses will be issued for these facilities for the general public until the Citizens Radio Communication Service goes into effect. This service will govern the use of walkie-talkies by the public, although its part in the operation of such equipment by emergency services—including fire—is not presently known. The Commission has said that the service would not be started until "equipment operating in the (walkie-talkie) band" had reached a "satisfactory stage development" and until the Commission had "completed certain technical and legal studies." Meanwhile, the commission has urged retailers selling Army surplus transmitters to attach tags telling the penalties for unauthorized operation.

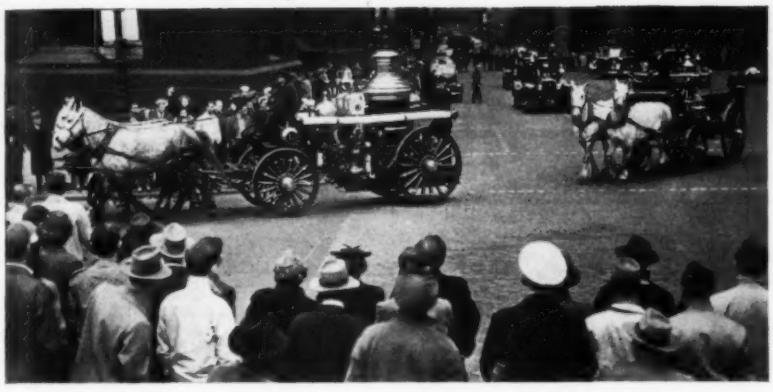
Those who have experimented with the type of walkie-talkie and handy-talkie used by the Armed Forces and attempted to adopt them to fire fighting operations have generally reported the equipment unsuited for such use.

It is understood that radio manufacturers are at work on improved walkie-talkie models which will meet the special requirements of the fire service. As has been announced, the F. C. C. has already allocated to the fire service certain channels for operation of walkie-talkie and other short-wave radio.

Townsend Heads Westchester "Plan"

B. Richter Townsend, former chief and commissioner of Hartsdale, N. Y., was elected president of the Fire Chiefs Emergency Plan of Westchester County, N. Y., at its annual dinner and meeting, on May 15th, at Schmidt's Farm, Westchester County. Over 500 members of the organization and their friends attended.

Chief Townsend succeeds Chief John Gibson of Mount Vernon, N. Y., to the presidency. Chief Gibson declined the renomination to succeed himself, and at the dinner was presented a beautiful tes-



Horse-Drawn Fire Appaartus as It Rounds the Last Lap Around Philadelphia's City Hall Plaza, in the Philadelphia Fireman's Parade, Celebrating the Department's 75th Anniversary

timonial wrist-watch. Also honored at the gathering were Chief James Mulchaey of Yonkers, for over twenty years Secretary-Treasurer of the International Association of Fire Chiefs, who will be 89 years young" in July; Chief Rudolph Swansen of Jamestown, N. Y., president, New York State Fire Chiefs Association; Seth Cole, attorney for fire service organizations of the state; James Harding, Commissioner of Public Service, Westchester County, and other County officials; Mayor Clark of White Plains, Chief Albert Berger of the Fairfield County Emergency Plan, Fairfield County, Conn.; Former Westchester "Plan" presidents, Chief and Commissioner Earl Krows of Hastings; Chief and Commissioner William Livingston (now mayor) of Tarrytown, N. Y.; Charles Jahne, Commissioner, Pleasantville and Chief Roi Woolley of Larchmont, N. Y.

Guests at the dinner included the six regular fire alarm dispatchers and other members of the White Plains Fire Department, and twenty-five and more volunteer dispatchers, who staff the Emergency Plan's County Fire Control Center at White Plains to direct county-wide mutual aid operations.

Philadelphia Bureau of Fire Celebrates 75th Anniversary

The 75th anniversary of the paid force of the Philadelphia Fire Department was celebrated from April 27 to May 4 with a daily program of civic events, beginning with a parade of ancient and modern fire apparatus, 115 pieces in number, with 3,000 firemen in line.

Open house was the order of the day at fire stations; local stores devoted window displays tracing the history of the department; there were various exhibitions of old and modern fire-fighting equipment, including a water throwing display staged by the fire boats on the Delaware; simulated fire at historic old Independence Hall. The week's festivities concluded with a banquet on Saturday night, May 4, attended by over 1,000 firemen and their friends.

Active in sponsoring the anniversary activities was the newly organized Box 1776 Association, the president of which is Albert H. Redles. The Association, formed in 1945, which takes its name from the fire alarm box (1776) located at historic old Independence Hall, is limited in membership and is dedicated to furthering the interests of the Fire Bureau.

At the banquet, the Box 1776 Association distributed a beautiful booklet entitled "75 Years of Service—1871-1946". This was written by Henry M. Stecher, Publicity Chairman of the Affair, and Box 1776 member, and contains the complete history of the Philadelphia Fire Department, with illustrations of outstanding fires, pictures of ancient and modern apparatus and so on.

Guest speaker at the banquet was Chief Roi B. Woolley, Assistant Editor of FIRE ENGINEERING.

Fire House and Apparatus Destroyed

A fire, starting from undetermined cause, wiped out the fire station and apparatus of the Georgetown, Conn., Volunteer Fire Department, and twenty-five years' hard work on the part of the volunteers, with a loss of $40,000.

Housed in the two story frame station and destroyed with it were two model 1929 fire engines, a 1941 ambulance, a lifeboat, 2,000 feet of 2½-inch and 800-feet of 1½-inch hose and all smaller equipment, including articles used by the volunteers to stage their annual carnivals.

The fire was discovered shortly after 5:00 A.M. by the watchman in a nearby plant who sounded an alarm on the factory whistle when it was discovered the fire had wiped out the town's alarm signal system. The volunteers, fifty strong, turned out under Chief Albert Berger but the intense heat made it impossible for them to enter the building to remove the apparatus. Hurry calls were sent to Ridgefield and Wilton, Conn., but by the time their fire forces arrived the structure and contents were doomed. All efforts were then directed toward preventing extension of the fire to the nearby massive Gilbert & Bennett plant. Water was pumped from an available brook, the firemen laboring for three hours before the final embers were extinguished.

Chief Berger, who is also president of the Fairfield County Fire Chiefs Emergency Plan, said the fire might have been started by a short circuit either in the department's ambulance or in the building itself. The station's heating system had been out of order for about a week at the time of the fire.

According to late reports, the stricken Georgetown department is rising Phoenix-like from the ashes. A plot for a new firehouse has been donated by the Gilbert and Bennett Manufacturing Company and building plans are under way, while Miss Ann Parrish, prominent authoress has presented $7,000 to the fund to re-establish the department.

Chief Berger has announced the immediate purchase of a $6,000 pumper, marked "rush" to meet the existing emergency. Temporarily, the volunteers are using fire equipment loaned by the Norwalk, Conn. Fire Department, which is housed in a carriage shed.

The Great Lakes Association of Fire Chiefs will hold its annual conference in conjunction with the International Association of Fire Chiefs in Cleveland, July 23-26. Chief Frank W. Bender, Jr., Saginaw, Mich., is Secretary-Treasurer.

Photo Courtesy Thomas F. Magner

Fire Wipes Out Fire House and Town's Fire Protection

All that remained of the Georgetown, Conn., Volunteer Fire Department's station and apparatus after early Sunday morning unexplained fire.

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

A Purpose Behind False Alarms

From Tom Showers, Eng. 40, Los Angeles County F. D., comes this interesting communication, anent false alarms and general skullduggery:

"The members of Eng. Co. No. 40 of the Los Angeles County Fire Department just became aware of the fact that recent false alarms were turned in for a real purpose.

It seems that while the boys are out responding to the false runs, usually given in the same neighborhood, some one, wise to the habits of the station, has been cutting down on the food fund, candy and cigarette funds, all kept in different lockers.

The culprit takes only a few dollars at a time, so it took a while to catch on.

The boys have evolved a plan with the Sheriff's Deputies and we hope to report the thief's capture at a later date."

Editor's note: We can remember numerous similar cases, in some of which thieves pulled boxes on the days they knew the brothers would have their pay cash in their lockers, cleaning out the station while the crews were out on the purposely pulled alarms. In New York City they sought the culprit among ex-firemen, and hangers-on at firehouses—and got their man!

* * *

Real Tragedy!

John Werfield, chauffeur for Stickney Engine, Nanticoke, Pa., Fire Department, answered a call to his apartment building and found his wife, Tacie, burned to death in the kitchen of their quarters. Mrs. Werfield, a medical examiner said, returned from a neighborhood store a few minutes before the tragedy occurred and started to prepare some food before removing her outer garments when a scarf was ignited. (Thanks Sheldon Wintermute.)

* * *

A Lighter That Really Works

No one can accuse Mr. A. F. Matthais of Atchison, Kan., of owning a temperamental cigarette lighter.

Mr. Matthais left his lighter on the lower sash of a window in his home. When a member of the family raised the window, the lighter flipped open and set the house afire.

Firemen extinguished the fire before much damage was done.

Now you tell one, Brother Ripley!

* * *

Hot Off the Tape

From the wayward press we read the following: *"The Prairie Township Farm Bureau meeting will be held at the Brookston school . . . the committee on purchase of a township fire truck will give their report and there will be a discussion. Pet and Hobby club children, please bring a hard boiled egg and crayons. The new leader, Selma Wagner, will be there."* Perhaps, children if you have no hard boiled egg for leader Wagner, you might invite a visiting firemen? . . . Mansfield, Ohio, is taking steps to head off the mounting fire losses, amounting to over $1,000,000 in the past 10 years, according to Fire Chief L. J. Steele. New trucks and equipment, and improved water supply system are main improvements. . . . Heading from Missouri Valley, Ia., Times: "QUICK WORK BY FIREMEN SAVES BEER TRUCK". That ain't news, Mr. Editor! . . . A full-time paid chief wil be appointed by the city of Eureka, Calif. . . . Twenty-six ranking officers were demoted and the same number promoted from the ranks to fill vacancies and the entire inspection staff of five was removed in most drastic shakeup in history of Scranton, Pa., Fire Department. One Battalion Chief was reduced to rank of private although he has served forty-five years in the department. . . . The Minnesota Fire Marshal's office and local fire departments of the State have developed a program for training all hospital personnel in fire prevention and the exact routines to be followed should a fire break out. . . .

* * *

Let It Rain, Let It Rain, Let It Rain!

A number of the faithful sent us the story of the interrupted stock company's production of W. Somerset Maugham's play "The Circle" at the Jersey Theatre, Morristown, N. J.

The play was warmly reecived, by an audience of 1,200, but only after it had survived a "cool reception" caused by what the wayward press said was a "faulty sprinkler system" which showered the cast on stage and in the dressing rooms as the opening curtain went up at 8:40 o'clock. Actually, we're told that the sudden rainstorm was caused by carelessness of a stage hand who knocked loose the fusible link of a sprinkler head.

Be the cause as it may, or was, the rain failed to dampen the ardor of the cast or of the crowd, which filed from the theatre as those on stage sought refuge from the downpour.

The performance was delayed forty minutes, while stage hands, firemen and members of the cast joined in mopping the stage and replacing damaged scenery. The audience filed back—all but seven who couldn't see the joke of it, and the show went on (with the Brothers standing by 'just in case', we're told).

* * *

They Call This SERVICE!

There's a woman living in Livonia who will never believe that the local firemen aren't prescient, premonitory, or gifted with just plain divination! And as for the Brothers themselves, they think they're pretty much on the button, if we judge from the item sent us by H. T. Valrance of the Livonia Township Fire Department.

What really happened was that the local fire truck was returning to its new quarters from a fire one morning, about 7:00 A.M., when one of the vols also en route home spotted a roof on fire. He quickly speeded up his car, caught up with the fire truck and informed the driver of the new blaze. In a jiffy the truck was turned around and was pulling up to the burning house just as the woman occupant completed her telephone call for the fire department.

We understand that when the popeyed housewife wanted to know how come the firemen arrived so miraculously, the boys merely said to her—"that's Livonia Fire Department service!"

As a postscript, we learn that the department's record in fighting Township fires last year was commendable. With a population of 10,000 and 24 miles of area to cover, the Township department made 66 runs and held fire losses to $27,000. The department has a new fire station, a 500 GPM pumper, n' everything!

* * *

Calamity at Calumet City!

We've often reported the destruction by fire of fire houses, and fire apparatus, but as far as we can recollect this is the first record of a fire engine burning itself up while "in action".

In Calumet City, Ill., the town's fire engine caught fire and burned up! What's more it was a pure case of self-inflicted arson or sumthin'.

The pumper truck, so the account goes, had finished dousing a $1,400 residual fire, when a connecting-rod broke loose, jammed through the gasoline line, showering the motor with gas, starting a hot fire.

Captain Leo Lessner and his men stood helplessly by while the nine-year-old, $7,800 fire truck was consumed in its own pyre. Two fire engines from Hammond, Ind., just across the state line, responded to the call of the clamoring Calumet firemen for help, but too late to save the machine.

* * *

Queen of the Ball!

New York firemen have gone completely 'glammer' and adopted Ziegfeldian techniques in their "public relations", if we're to believe the wayward press.

Latest is the contest just completed for the "Queen of the Fireman's Ball" (one paper spelled it 'brawl') which was won by Miss Queens, otherwise known as Jean E. Woytisek, eighteen-year-old typist with the Triborough Bridge and Tunnel Authority at Randall's Island.

The Ball, for which she was chosen queen over contestants from the city's other Boroughs, was held at Madison Square Garden, May 28, and was sponsored by the Uniformed Firemen's Association of Greater New York.

Miss Woytisek will reecive a trip to Mexico City as guest of the Mexican government Tourist Department and the Municipal Fire Fighters of Mexico City.

* * *

A 'Bird' of a Fire

The basement of Memorial Lutheran Church, Harrisburg, Pa., filled with smoke and gas fumes one evening when efforts were made to revive the banked fire, and the fire department received a hurry-up call, Asst. Chief "Billy" McBride responding.

The Chief groped through smoke, checked the boiler hastily, then opened the clean-out door at base of the chimney. Whereupon "hundreds and thousands" of chimney swallows emerged—some dead and sooty, others alive—to swarm over McBride like bees, clinging leechlike to his clothes. Still more cluttered up the boiler room.

McBride shoveled, raked and pulled birds out of the chimney base to the extent of six bushels worth, by which time normal boiler draft was restored and the Chief, sooty and surfeited with swallows, returned to quarters. (Thanks "CK").

The ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

DEWATERING BASEMENTS FOLLOWING FIRES

ONE of the best ways a fire department can sell itself to the public is to undo in some measure the tragic effects of a fire. Water is always very much in evidence to the dismay of the occupants. Many fire departments are coming to the rescue of these tenants by dewatering basements and cleaning up the premises as much as possible.

The best recommendation that any fire department could receive is the one the Erie Fire Department got after the "Dispatch-Herald" fire of a few weeks ago. The press room was flooded to a depth of about three feet of water, yet the newspaper was publishing on its own presses four and a half hours after the pumps were put to work.

The majority of the chiefs participating in this round table report that dewatering basements after a fire is a function of their departments. If the fire department does not do this, one of the other city departments, usually the sewer department, performs this work upon the recommendation of the fire department.

Readers are invited to send in their comments on this subject or on next month's which is given in a box on the following page. Address communications to Round Table Editor, 24 West 40th Street, New York 18, N. Y.

Discussion of the Topic

Lawrence P. Scully, Chief, Erie, Pa.: Our department arranges for the dewatering of basements in buildings following fires. We have followed this practice for many years.

Pumping equipment from the street department is brought to the scene of the fire as quickly as possible and basements are cleared of water quickly. We had a specific instance of the value of this type of work on May 16 when the well of the press in the "Dispatch-Herald" newspaper office was flooded to about three feet of water when we knocked down a fire on the second floor. The pumps were put to work at about 9:30 A. M. and the paper published on its own press an eight-page paper at 2 o'clock.

The service has proven satisfactory although more modern equipment is now desirable. There is no charge made for this service.

Readers of FIRE ENGINEERING may be interested in the following letter from Kenneth D. Tooil, Editor and Co-Publisher of the "Dispatch-Herald":

"There was very little opportunity to talk to you in detail about the work of your department during the "Dispatch-Herald" fire of last Thursday, because of the general excitement in this building.

"First of all I want to commend your men and you for the manner in which the emergency was handled. I think your department displayed exceptionally fine knowledge of the science of fire fighting and that your leadership of them was nothing short of superb.

"There is no doubt that it was due to this all-around efficiency that the loss on this plant was kept to a minimum and that operations were resumed so quickly.

"It was obvious to me, even with my limited knowledge of the science of fire fighting that your men were faced with a situation that offered extreme difficulty. The smoke and fumes from the burning material in the building made it impossible for them to approach the center of the fire and to use chemicals and other smothering facilities. This meant, of course, that an unusual amount of water would have to be thrown from a distance to avoid serious injury to the men.

"In a plant such as ours, where all the machinery is of a delicate nature, even though much of it is huge in size, water damage can be as serious as actual burning. However, your men did a fine job of protecting our machinery by the use of tarpaulins.

"In spite of that, our building was badly water soaked, and our pressroom which is below the street level, was practically a lake.

"I would not have given a nickel for our chances of publishing a paper from this plant during those first few hours when your department was on the job. When I saw water cascading over our presses and flooding our composing room to the depth of almost a foot, I felt the plant was out of commission for a matter of weeks.

"As gallant as was your department's effort in extinguishing the fire, even more remarkable was their performance in putting this plant back into working condition. I doubt very much whether I will be believed by other publishers when I tell them what conditions were at noon of last Thursday, and that we actually produced an eight-page newspaper by our own facilities, including the press, at two o'clock that afternoon.

"This was made possible entirely by the cooperation of the Erie Fire Department in cleaning up our building.

"The manner in which your pump crew emptied the water from our pressroom and your clean-up crew went to work on the rest of the building was one of the finest examples of wholehearted cooperation I ever have seen on the part of a fire brigade.

"Our floors were ankle deep and water and debris throughout eighty per cent of our building, and your men with their squeegees, brooms, and other equipment had our floors clean in less than an hour, leaving only the dampness as a reminder that they had been under water but a short time before.

"I do not know what other fire departments do in the matter of helping a fire victim restore his premises, but I want to say that the Erie Fire Department certainly has adopted a method designed to greatly enhance its prestige and endear itself to the people of Erie. I can well imagine the heartfelt gratitude that this work engenders in the minds of householders and the proprietors of business places.

"It is my belief that any city safety department can use friends and boosters in its community. It needs this wealth of good will at all times for many purposes, not the least of which is to engender a willingness on the part of citizens to see that the departments are well equipped and the men well paid. You may be quite certain that this newspaper now has a new feeling of friendliness and good will toward the Erie Fire Department. I have instructed my news department that I want everything possible done at all times to remind the people of Erie that it has a fire department of which it can be proud. Editorially, you may rely upon our support in any effort to improve the working facilities, working conditions, and pay of the men of the Erie Fire Department. I know of no other way in which to translate our gratitude into genuine action.

It would be a fine thing, I think, if the heads of fire departments everywhere would bear constantly in mind that the good will of the community is a valuable thing to foster, and that service to the victims of fire is the very best way to accomplish this.

"I want to extend to you my warm personal regards and my thanks for what your department did last Thursday for the 'Dispatch Herald.'"

HERE IS THE QUESTION

1. **Does your department dewater basements of buildings following fires?**
2. **If so, what method and equipment are employed?**
3. **Have they proven satisfactory?**
4. **Do you make a charge for this service? If so, how much?**

G. R. McAlpine, Chief, Oklahoma City, Okla.: The Oklahoma City Fire Department does dewater basements after a fire.

Immediately, upon control of fire in a building, we set up methods of removing water from the basement or other floors. One of three methods is used: 1. when windows or openings in the building are accessible, we use engines to draft out the water. 2. We have in this department hydraulic jets that are operated by hose lines and which force the water out to the street This has proven very satisfactory. 3. We remove water when it is necessary by the use of tubs, or by hand. This is slow, but in some cases there is only a small amount of water and it cannot be handled by draft or jet.

We do not make a charge for this service as we feel that our job is not complete until the water has been removed. This protects the adjoining property from leakage or seepage through the walls.

We do not believe we have fulfilled our duty and responsibility to the owner until we have removed the elements of damage to the property caused by fire.

C. C. Styron, Chief, Atlanta, Ga.: The Atlanta Fire Department does not make a practice of dewatering basements after fires.

The Georgia Power Company has a special pump for this purpose and charge a nominal fee for their services, when requested.

William Murdoch, Chief, Hamilton, Ont.: This department dewaters basements after a fire, particularly where drains are blocked in the basement and where water has reached some considerable depth.

We have a spare 350 gallon pumper which is used in most cases for this work.

We make no charge for this service. It is part of the salvage work exercised by this department.

Sidney L. Ulrich, Chief, Peoria, Ill.: We remove water from basements, not only after fires but as the result of flash floods or heavy rain storms.

The methods employed are two in number. We use an OCD pumper or on a small job, our portable Homelite pumping equipment. These methods have proven successful so far.

In case of a fire and where water is in the basement, we do not make a charge. However, if people have water in their basements and desire to have it removed with our equipment, operated by themselves, we charge them $1.00 an hour for these small portable pumps from the time they get them from the department until they are returned. This usually gets them back in a hurry.

Frank S. Sandman, Chief, Long Beach, Cal.: This department makes every effort to pump out basements filled with water from fire fighting operations. We use small Homelite pumping units for this purpose and they have proven very satisfactory in the past. We make no charge for this service as we deem it to be part of our overhauling procedure. We have found that public relations are improved by these methods of operation.

D. A. Boulden, Chief, Winnipeg, Manitoba: This department pumps out the water in basements following fires.

If there is a lot of water, old reserve fire engine pumps are used and we carry three sump pumps which pump 25,000 gallons per hour.

In a cold climate like this is, it is necessary to get the heating equipment working, and sometimes during fires, sump pumps are used to keep the boiler pit in adjacent buildings free from water so that the water does not reach the grates and put the furnace out. The owners of buildings and citizens generally appreciate this service.

We do not make any charge for this service. Furthermore, if water mains break or floods take place, we also pump out basements.

Edward J. Cannon, Chief, Norfolk, Va.: The only occasion we dewater basements is when the condition constitutes a situation of unsanitary state, or when requested as a matter of courtesy. The method used is the siphon system. This is very satisfactory. No charge is made for this service at all.

Howard Travers, Chief, Baltimore, Md.: The dewatering of basements of buildings following fires is handled by the Fire Insurance Salvage Corps, and by the fire department only if conditions create a hazard to building or surrounding properties.

Siphons or pumpers are used. These are satisfactory. There is no charge made for this service.

Charles G. Burnett, Chief, Newark, N. J.: It has been a practice of the Newark Fire Department for a number of years to pump out cellars, subcellars or basements where a considerable quantity of water has accumulated after a fire.

For this purpose we have small portable gasoline pumps that are brought to the scene of the fire on a truck, dismounted, connected and placed into action. This work is usually taken care of by the detail left at the fire for overhauling operations.

This method has proven entirely satisfactory through the years, and in an emergency, the service has been extended to hospitals, schools, institutions and industrial plants where the basements or lower parts of the buildings may have been flooded through heavy storms, breaks in the water mains, etc.

The Department of Public Safety, Fire Division, has never made any charge for this service.

F. C. Vernotzy, Chief, Akron, Ohio: The Akron Fire Department does dewater basements after fires with the aid of a 250-gallon gasoline-driven pump, and on smaller jobs hose siphons are sometimes used. No charge is made for this service. It has proven to be satisfactory.

A. McC. Marsh, Chief, Columbia, S. S.: We use Homelite pumping plants for dewatering basements after fires. We have two of these in the department. This is one of our strongest ways of saving in salvage where the storage is great. We also have a 500-gallon trailer pump that we use when the demand is great.

J. R. Smith, Chief, Birmingham, Ala.: In the past this department has pumped out basements after fires. We use reserve pumps when doing this work.

There is no charge for this work although sometimes the firemen pumping out the basement are given something by the owners or occupants of the building.

Joseph S. Masterson, Commissioner, Buffalo, N. Y.: When it is possible we open drains to dewater cellars. If this is not successful we use a H & M siphon. We use a pumper when all efforts fail. No charge is made for this service.

Clement Murphy, Chief, Washington, D. C.: We use a peripheral jet siphon to dewater basements after a fire. No charge is made.

Charles L. Slade, Chief, Des Moines, Ia.: We use a Gorman-Rupp portable pump to dewater basements. No charge is made.

On our inspection tours we try to convince occupants of the necessity of having a sump of some kind at a low point in order that we may draft all water. Otherwise it is hard to properly clean up. Where there is no sump we usually use a bar and make one, which isn't always appreciated by the occupant.

Howard L. Dey, Chief, New Orleans, La.: We dewater basements after fires. Depending upon the amount of water, we use a pump or buckets and mops.

There is no charge made for this service as it is part of salvage work.

C. D. Goldsmith, Chief, Duluth, Minn.: We dewater basements of buildings following fires when it is necessary. We use department made siphons operated off hydrants. These are satisfactory. There is no charge made for this service.

Thomas H. Cotter, Chief, Providence, R. I.: We use siphons and Homelite portable pumps to dewater basements following fires. There is no charge for this work following fires; otherwise the charge is $5.00.

George T. Morgan, Chief, Wilmington, Del.: We use a siphon or OCD pump to dewater basements following fires. There is no charge.

L. B. Barnum, Chief, Phoenix, Ariz.: We use a fire engine pump or Homelite pump to dewater buildings following fires. We make no charge for this operation.

Edward Wischer, Chief, Milwaukee, Wis.: We use siphons, small Homelite pumps and regular apparatus to dewater basements following fires, for which we make no charge.

George E. Hare, Chief, Jacksonville, Fla.: We use Homelite cellar pumps to dewater basements of buildings. No charge is made for this service.

John Krusenklaus, Chief, Louisville, Ky.: We dewater basements by use of a fire pumper. This is very satisfactory and we make no charge for the service.

HERE IS THE QUESTION FOR THE NEXT ISSUE

1. **Do you regularly use 1½-inch hose in fire extinguishing operations?**
2. **What is your procedure with regard to 1½-inch hose:**
   (a) **At what fires is it used?**
   (b) **Is it stretched in before larger lines, or is it used only in special cases?**
3. **What benefits result from the use of 1½-inch hose, such as increased efficiency, reduction of water damage, etc.**

WaterFOG SCORES HIGH AGAIN IN FIVE HOUSE-FIRE TESTS

TEST NO 3: *Object* — to extinguish large fire on two floors, behind partitions and walls and in blind attic. *Preparation* — piles of combustible material in first floor; plaster and lath removed from ceiling; excelsior in second-floor room and attic with trap door open; attic vented by open windows and holes in second-floor ceiling. Fire started on first floor after priming with 5 gals. each of gasoline and solvents. Photo taken 30 seconds after ignition shows dwelling well involved.

Extinguishes Cellar, Attic and Completely Involved House Fires Quickly... Safely at only 100 lbs. Pressure

If you missed the original reports of the comprehensive field tests of the use of Rockwood WaterFOG on a condemned Hampden, Conn. 2½-story frame dwelling held under the joint sponsorship of the Hampden Fire Dept., Chief R. C. Spencer, and the New Haven Fire Dept., Chief Paul P. Heinz, here are the highlights.

TEST NO. 1 showed the ease and safety with which a cellar fire can be extinguished by advancing line through heat and smoke down basement stairs behind WaterFOG Nozzles.

TEST NO. 2 demonstrated how a large cellar fire can be quickly extinguished by applying "fog" through hole in first floor by means of cellar pipe.

TEST NO. 3 described in pictures and captions.

TEST NO. 4 saw an attic fire knocked out in 2 sec. with 7 gals. of water by WaterFOG applied through 2½-in. nozzle mounted on aerial ladder.

TEST NO. 5 established WaterFOG's ability to control a fire, completely involving a house, by eliminating all vertical heat and sparks.

For further evidence that Rockwood WaterFOG *at ordinary pressures* now available on existing fire-fighting equipment effectively extinguishes Class "A" fires, reduces fire and water damage, protects men and equipment, write for literature. Remember — Rockwood WaterFOG Nozzles are approved by Underwriters' Laboratories, Inc. and Associated Factory Mutuals.

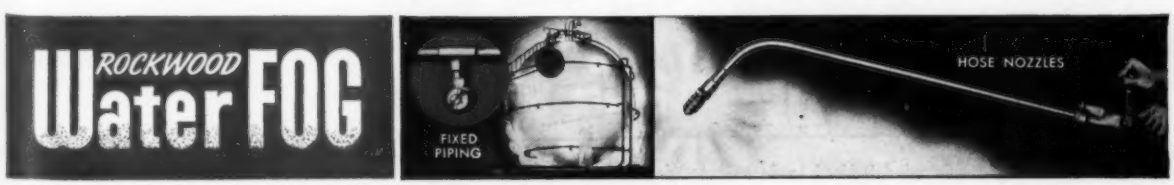
TEST NO. 3 CONTINUED: Fire was fought with two 1½-in. and one 1-in. Type SG-40 Rockwood WaterFOG Nozzles *originally developed for the Navy*. Pressures at nozzles approx. 100 psi. WaterFOG first applied to fire 1 min., 16 sec. after start. In 17 sec., fire in first floor practically out. In 1 min., 40 sec., fire in second floor and attic extinguished. In 3 min., 14 sec., all glowing embers extinguished and water turned off. *Observations:* First application of WaterFOG inside the house caused fire on outside, fed by flames lapping out of first-floor windows, to die down immediately, leaving charred surface. Men operating lines had no difficulty advancing behind fog patterns. Total discharge of water for all operations was 416 gals.

ROCKWOOD SPRINKLER COMPANY

54 Harlow Street, Worcester 5, Massachusetts

Specialists in Fire Protection Engineering, Equipment and Installation since 1907

WATER ENGINEERED BY ROCKWOOD COOLS, CONFINES, SMOTHERS CLASS "A" AND OIL FIRES



FALSE ALARMS

Rules for Women Who Must Descend Fire Escapes (April, 1911)

Here are the rules promulgated by Chief Archie J. Eley of the Los Angeles Fire Department in 1911:

1. Pin up your dress between your knees so you will have perfect and unembarrassed freedom.
2. Carry scissors, and if you wear a hobble gown, cut it so it won't impede your movements.
3. Face the steps in descending.
4. Don't look down.
5. Look forward or upward.
6. Keep both hands on the fire escape railings, and follow the old sailor axiom of never letting go with one hand until you have a firm grip with the other.
7. Kick off high-heeled French slippers, which may catch and trip you.
8. Don't clutch at the fire escape or fight the fireman who is carrying you. He will not let you fall. Relax.
9. Don't let mock modesty stand in the way of your life.
10. Remember a fireman and a woman lose all sense of personality in time of danger; you are merely a life to be saved; he is the means to do it.

Snub

She was one of society's most glittering matrons. She was giving a formal dinner party and haughtily phoned the local Navy headquarters and asked them to send along a few staff members.

Two men of the rank-and-file arrived and were indignantly requested to eat with the servants in the kitchen.

Furious at such an occurrence, the hostess rang the Naval Commander next day and demanded to know the reason for sending such low-ranking men to her party. The Commander explained that one was an earl, the other a viscount.

"Goodness!" gasped the matron. "Won't you please apologize to them for me, and ask them to call again?"

They did. They went to the back door and took her two maids to the movies.

A Chinese cook was walking through the woods. He turned around to see a grizzly bear following him, smelling his tracks.

"H'm," said the Chinaman, "you like my tracks? Very good, I make some more."

Wives have discovered the trouble with the husband who works like a horse; he doesn't want to do anything in the evening except hit the hay.

A doctor whose specialty was skin diseases was asked why he selected that particular branch of medicine.

"Because my patients never get me out of bed at night, they never die and they never get well."

"Whenever an Alarm Sounded It Used to Be a Three-Way Tie at the Top of the Pole!"

A white man said to an Indian, who had stopped to rest his panting horse: "Ride just as fast as you can and the breeze will cool off your horse."

The Indian did so and soon the horse fell dead. He looked at the animal and finally said with resignation: "Ugh! Frozen!"

It is said:

"If you keep your nose to the grindstone rough,
And keep it there long enough,
You will forget there is any such thing
As the brooks that babble and the birds that sing.
These three things will your world compose,
Just you, and the grindstone, and your darned old nose."

They laid him out on the police floor, and the cop who brought him in stood by while the doctor examined him. Finally the doctor arose and said, "That man's been drugged." The cop went white and shivered. "That's right, sir. It's my fault. I drug him 6 blocks."

Trapped

Our nomination for the dumbest crook of 1945 goes to the Chicago man who stole a check for $135 from a mailbox and endorsed it carefully with the name of the payee. Then, just for safety's sake, he forged the same name to a ration book. He presented the check at a bank, and showed the ration book as identification. The teller did a double-take when he saw the signature —it was the title of a trade magazine. He called the cops quick and they led Mr. "Laundry Age" away.

On his tour an inspector of city high schools came before a class of girls. He wrote on the blackboard 'LXXX.' Then, peering over his spectacles at a good looking girl in the 1st row, he asked:

"Young lady, I'd like to have you tell me what that means."

The girl replied, "Love and kisses."

He: "And I've got a gold medal for running five miles, an' one for ten miles; a silver medal for swimming, two cups for wrestling, and badges for boxing and rowing!"

She: "You must be a wonderful athlete."

He: "Athlete? I run a pawnshop."

Pages in History

In the days of Queen Elizabeth some of the court ladies liked to curl up with a good book, while others simply preferred to curl up with one of the pages.

Mason-Dixon Line: The division between "you'all" and "youse guys."

LIKE THE TWENTIETH CENTURY LIMITED...

AHRENS-FOX FIRE FIGHTING EQUIPMENT is *Dependable* Through Thick and Thin

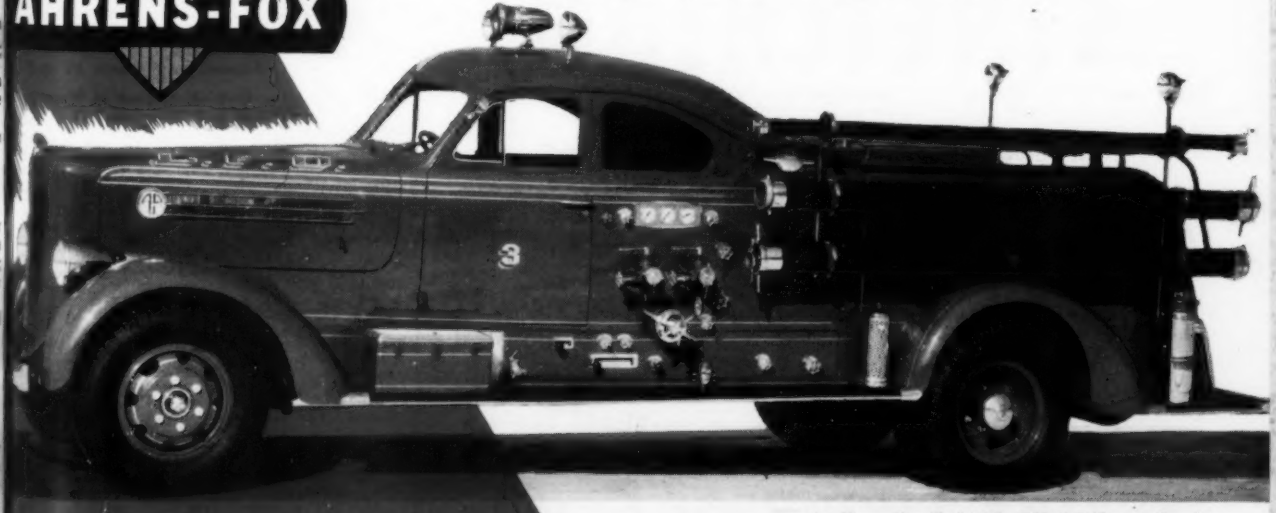
FOLKS that live along the New York Central right-of-way can set their watches by The Century. For, summer or winter, the big flyer goes through on schedule.

And the same full dependability is built into every piece of fire fighting equipment made by Ahrens-Fox. Howling blizzards don't worry an Ahrens-Fox pumper. Bad roads were just made for it to overcome. Under no matter what operating conditions, an Ahrens-Fox pumper will get to the fire and do its job!

Nor has Ahrens-Fox ever produced better apparatus than the machines now coming from its big, new postwar plant. Today's equipment is the finest made in Ahrens-Fox 41 years of quality output. And the greatly enlarged Service Department will keep Ahrens-Fox apparatus in like-new condition for years to come.

Before adding to your investment in fire fighting equipment, be sure to investigate what Ahrens-Fox has to offer. A letter —or a visit—from you will be always welcome.

AHRENS-FOX



● *Ahrens-Fox Model EC—750 G.P.M. centrifugal type triple combination pumper with enclosed cab.*

THE AHRENS-FOX FIRE ENGINE CORP. - CINCINNATI 12, OHIO

A Pump for Every Purpose

BALANCED WEAVE AND CONTROLLED CURING PREVENT EXCESSIVE WARPING AND STRETCHING

In addition to Balanced Weaving of Jackets and Controlled Curing of Linings—both of which mean easier hose handling—every *Streamlined* Eureka Fire Hose offers Smooth Interior Filler Ply for maximum nozzle pressure, Bomb Tested Linings for longer life, and Mildew-Proofing with Formula X.

EUREKA

"For greater protection to life and property"

EUREKA FIRE HOSE

Division of United States Rubber Company

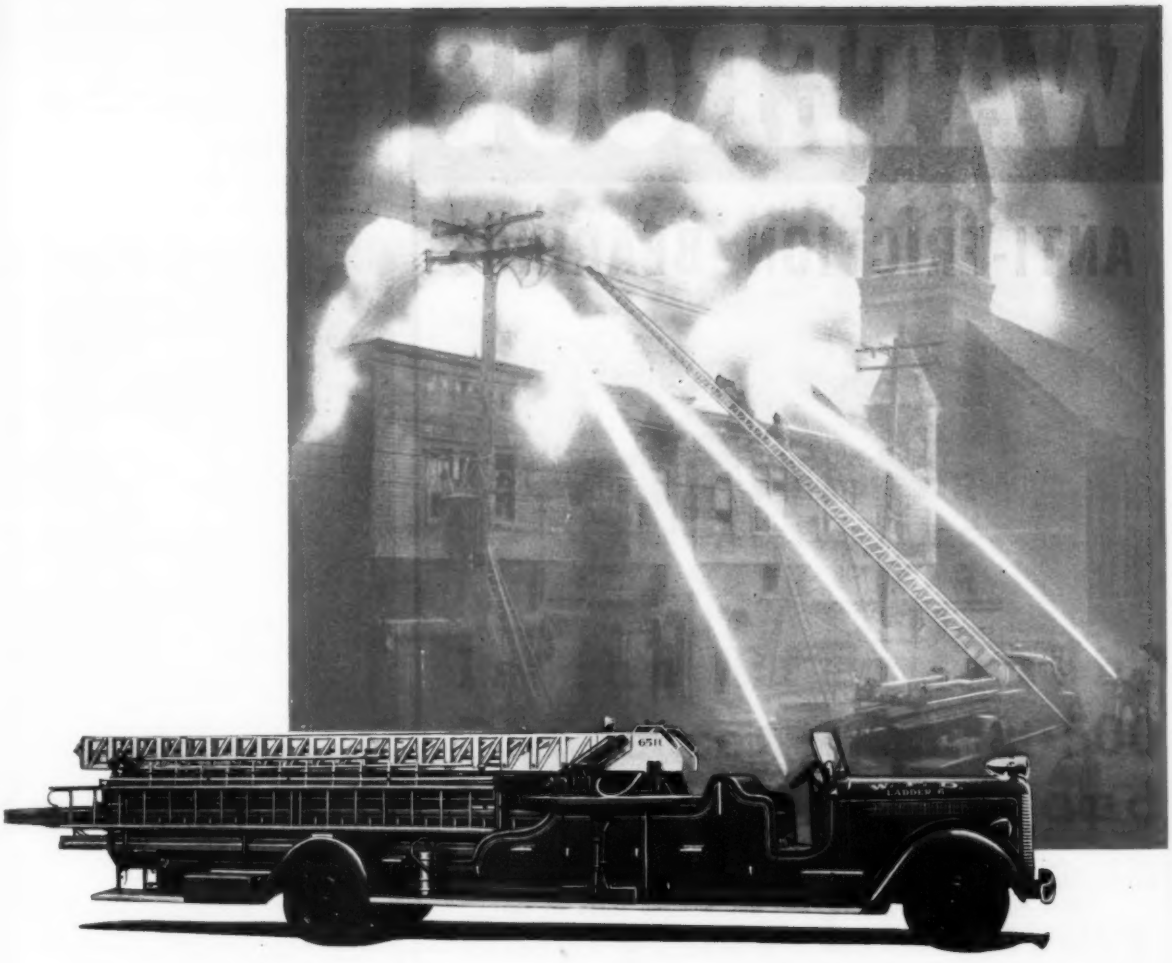
1230 Avenue of the Americas • Rockefeller Center • New York 20, N. Y.

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of May, 1946.

Month Ending May 31, 1946

Vancouver, B. C.—St. Mungo cannery, owned by Nelson Brothers Fisheries, damaged.
Chicago, Ill.—Barn at Arlington Park Race Track, containing 23 horses owned by Maine Chance Farm of Elizabeth Arden, destroyed.
Sudbury, Ont.—Peter Davis business block destroyed.
Minneapoils, Minn.—Plant of American Excelsior Co., destroyed. Switch engine sparks.
Perkasie, Pa.—Feed mill and storage barn, estate of E. F. Stover, Blooming Glen, destroyed.
Tacoma, Wash.—Fort Lewis engineers shops equipment destroyed.
Spokane, Wash.—Spokane Country Club destroyed.
Seaforth, Ont.—Creamery storage lockers and egg packing plant of Export Packers and adj. dwelling of Ed Roach, damaged.
Toronto, Ont.—Bldg. occupied by Reed Canadian Engravers, Ltd., Yuletide Studios and Harold E. Ballard, Ltd., damaged.
Deep River, Conn.—La Place furniture store damaged.
Stamford, Conn.—Stamford Lumber Co. yard and four dwellings destroyed.
Haines City, Fla.—Whse. of Suni Citrus Products Co. damaged. Spontaneous ignition.
Glens Falls, N. Y.—Halfway House, a tavern, Route 9, beween here and Lake George, destroyed. Sparks ignited grease in exhaust fan hood.
Grove City, Pa.—Schell Block, occupied by Great Atlantic & Pacific Co. market, W. M. Bashline Leather Goods Co., Bowie Coal Co. office, barber shop, two apts., damaged.
Memphis, Tenn.—Quarter boat occupied by Memphis District United States Engineers, destroyed.
Underwood, Wash.—A devastating fire virtually destroyed this mid-Columbia River valley village of 400 population, leaving 30 families homeless. Underwood Mercantile Co., Hotel Market, Texaco station cabins destroyed.
Atchison, Kans.—Whse. of Blair flour mill destroyed.
Hastings, Neb.—Plant of Western Brick & Supply Co. destroyed.
Klamath Falls, Ore.—Oregon State Chick Hatchery destroyed.
Oil City, Pa.—Edwards dept. store destroyed; adj. Printz Co. bldg. also damaged.
Portsmouth, Va.—Woodrow Wilson High School damaged.
Fort Wayne, Ind.—Whse. of Motor Cargo, Inc., damaged.
Ashtabula, Ohio—Neisner Store Block destroyed.
Shepherdstown, W. Va.—Natl. Highway Garage, and offices and packing plant of McKee Bros. Packing Co. destroyed.
Kenogami, Que.—Dry goods store destroyed; also another dry goods store and genl. apts. damaged.
Montreal, Que.—Business block, downtown St. Paul Street, destroyed.
Roxbury, Conn.—Dairy barn on estate of A. R. Seibold, destroyed.
East St. Louis, Ill.—Brick whse. of National Oats Co. damaged.
Newton, Kans.—Express car of Santa Fe mail train destroyed.
North Salt Lake, Utah—Main plant of Wasatch Wool Co. destroyed.
Winnipeg, Man.—Workshop and storage yard of Henry Borger & Sons, destroyed; adj. lumber yard of McDiarmid Bros., also destroyed. Sparks from welding torch.
Spokane, Wash.—Block's shoe store damaged.
Delafield, Wis.—Gymnasium of St. John's Military Academy, destroyed.
Hollister, Cal.—E. W. Vessey Co., lettuce packing shed, one mile east, destroyed.
Indianola, Ia.—E. H. Felton Co. elevator and feed mfg. plant destroyed.
Waukon, Ia.—50,000 gallons high octane motor gasoline and aviation school, damaged.
Carrollton, Ky.—Auditorium of Carrollton High School damaged.
Haverford, Pa.—Bldg. of Quaker City Dressed Poultry Co. destroyed.
Lancaster, Pa.—Acme Super-Market Store destroyed; adj. furniture store of John Wiley, damaged.
Chicago, Ill.—Hydrox Corp., ice cream and beverage mfrs., damaged.
Peoria, Ariz.—Masonic bldg., occupied by Peoria Hardware Co., Arizona Cafe, Masonic Lodge and other civic organizations, damaged.
Rock Island, Ill.—Rock Island arsenal's tank engine testing room destroyed.
Cortland, N. Y.—Berlew Bldg. occupied by hardware store and apts. destroyed. Two adj. business blocks damaged.
Memphis, Tenn.—Six dry kilns and whse. of Jorgenson-Bennett Mfg. Co. damaged.



A GOOD REPUTATION IS WELL DESERVED

The reputation for producing good fire apparatus cannot be earned the easy way, but is a well deserved tribute acquired only through years of building fire apparatus carefully and well, and delivering more in workmanship and performance than required. Pirsch has that reputation.

Whether you are buying an aerial ladder truck, pumping engine or some other type of apparatus, buy Pirsch and profit by the background and experience of a proven product.

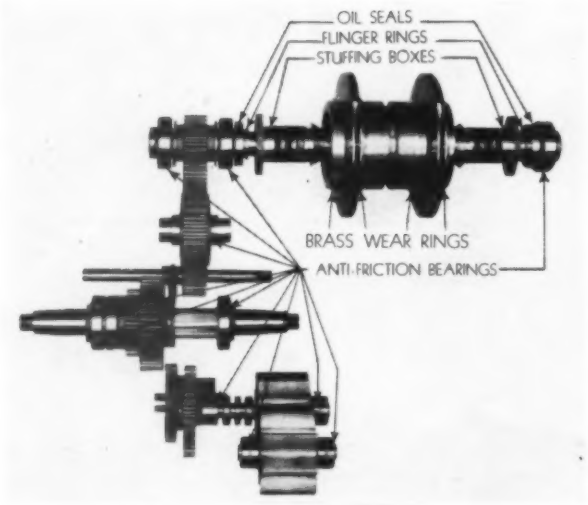
The 65' Intermediate aerial shown above has been delivered to the City of Worcester, Mass., making two Pirsch aerials and one Pirsch pumper in service there, with an additional aerial and pumper now on order.

PETER PIRSCH & SONS CO. KENOSHA, WIS.

"BUILDERS OF AMERICA'S FIRST ALL-POWERED AERIAL LADDER TRUCK AND AMERICA'S FIRST 100' AERIAL LADDER"

WATEROUS

ANTI-FRICTION BEARINGS



Study the internal assembly of WATEROUS Series-Parallel Fire Pumps shown above, and you will see some of the reasons for their all around dependability.

The impeller shaft is supported at each end by ball bearings which are protected by stuffing boxes, flinger rings and oil seals. These keep water and dirt out of the bearings and keep the oil in. The packing may be adjusted or replaced without disturbing the setting of the pump in the chassis. When in the market for pumping equipment we suggest that you make a point for point comparison of the internal construction of the pumps being offered and we are confident that you will specify WATEROUS.

SINCE Waterous (Dependable) 1886

WATEROUS COMPANY • ST. PAUL, MINNESOTA

Also Manufacturers of WATEROUS Fire Hydrants

FIRE PUMPS

Chicago, Ill.—Reid Hall, Lake Forest Academy, Lake Forest, destroyed.

Dayton, Ohio—Dayton plant of Fleet Wood Bakeries, damaged.

Bend, Ore.—Evans Fly Co., a sport goods store, destroyed.

Bassett, Va.—Virginia Machine Works destroyed.

Cornwall, Ont.—Store, billiard parlors and bowling alleys, operated by Fred Starford and Alfred Kennedy, damaged.

South River, Ont.—Standard Chemical Co. plant damaged.

Holland, Mich.—Holland Color & Chemical Co. plant destroyed.

Klamath Falls, Ore.—O'Connor's feed mill destroyed.

Klamath Falls, Ont.—Shaw-Bertram Lumber Co. damaged.

Farmer City, Ill.—Gring-McCord Grain & Feed Mill destroyed.

Portland, Ore.—Mayflower Hotel and Morrison Electric Co. destroyed.

Riverside, Cal.—W. E. Wiley blacksmith shop, Subway Cafe, Linrud electric shop, Western Roofing Co., Riverside Insulating Co., Nehl Bottling Co. storage whse. and De Anza Chevrolet Co. whse. destroyed.

Iowa City, Ia.—East Mall of University of Iowa campus destroyed. Radio short circuit.

Rochester, Wash.—One-half town, including ten commercial firms, destroyed.

Milwaukee, Wis.—Business block occupied by John Walkers Men's Store and American Natl. Fur Breeders' Co-operative House, damaged.

Cincinnati, Ohio—Yard and tipple of Hatfield-Campbell Creek Coal Co. destroyed.

Arp, Tex.—Eighteen oil storage tanks and 11 railroad tank cars destroyed. Lightning.

Houston, Tex.—Gulf Lumber & Milling Co. destroyed.

St. Johnsbury, Vt.—Simonds Bldg., occupied by Green Mountain Fruit Market, Checkerboard feed store and Caplan's Army Store and adj. business bldg. damaged.

Spokane, Wash.—Falls View Apts. damaged.

Rockland, Me.—Fed by 15,000 gallons of explosion-sprayed alcohol, fire leveled the plant of the Algin Corp. of America on Crockets Point.

Jefferson, Ore.—Second Santiam Flax Growers Co-operative destroyed.

Riviere Du Moulin, Que.—Shed of Arthur Gagnon, Roads Dept. garage and twenty dwellings, destroyed.

Edmonton, Alta.—Apartment block damaged.

LaGrange, Ga.—Bldg. occupied by LaGrange Baking Co. and Boston Shoe Shop, destroyed. Bldg. occupied by Chapman's Novelty and Ellis Solomon's clothing store, damaged.

Elkhart, Ind.—J. C. Penney Store damaged.

Greenville, Mich.—Meijer Supermarket and adj. tavern destroyed.

Cashmere, Wash.—Potlatch Lumber Co. destroyed.

Brandon, Man.—Whse. of Cockshutt Plow Co. and auxiliary storage whse. of McKenzie Co. damaged.

Palmer, Alaska—Matanuska Valley Hospital destroyed. Defective wiring.

Phoenix, Ariz.—Whse. used for storage purposes by Sears Roebuck & Co., General Sales Co., Western Auto Supply, destroyed.

Chase, Kans.—Main bldg. of C. L. Tyrrell Oil Field Trucking Co. destroyed. Sparks igniting fumes from leaking gasoline tank.

Cornwall, Ont.—Steel tug Capitaine Simard, owned by Marine Industries of Sorel, Quebec, destroyed.

Oakland, Cal.—Don Lee Motor Co. bldg. damaged.

San Francisco, Cal.—Crockery plt. of California Technical Porcelain Co., El Cerrito, destroyed.

Howe, Ind.—Academic classroom bldg., Howe Military School, destroyed. A 10,000-volume library destroyed.

York Harbor, Me.—Dwelling owned by Joseph A. Parsons, destroyed.

Watervliet, Mich.—Theatre destroyed.

Columbus, Ohio—Farmers Marketing elevator and mill destroyed.

Pittsburgh, Pa.—Carfagna Appliance Co., Turtle Creek borough, destroyed. Flood snuffed gas flame, caused explosion.

New Westminster, B. C.—Alberta Tar Sand Deposits, destroyed.

Bakersfield, Cal.—Crude oil tank at Union Oil Co., Rio Bravo pump station, 15 miles east, destroyed. Lightning.

Los Angeles, Cal.—Bldg. occupied by Capital Mfg. Co., and Lagune Sportswear Co. plt. destroyed.

Aurora, Ind.—Aurora Hotel destroyed.

Topeka, Kans.—Main section of Holiday Junior High School damaged.

Billings, Mont.—Rowan Motor Supply Co. bldg. and garage, destroyed.

Pavilion, N. J.—Whse. occupied by Potter-Dewitt Corp. and B. R. Dewitt, Inc., joint contracting and hauling firms, destroyed.

Broderick, Cal.—Main barn of Tudesko & Deller, a meat packing co., destroyed.

Gulfport, Miss.—Whse. of Gulf Coast Milling Co. damaged.

San Francisco, Cal.—Ammunition whse., Islais Creek depot, damaged.

Jackson, Miss.—Laundry of Mississippi State College destroyed. Short circuit.

In New England -

From Van Buren, Maine to Greenwich, Conn.

GEO. T. COGAN
Chief, Fire Department
Portsmouth, N. H.

Host to the 24th Annual Convention, New England Association of Fire Chiefs

Situated at the mouth of the Piscataqua River on one of the finest harbors in the world, the city of Portsmouth, New Hampshire, has been famous in American history since the days of John Paul Jones and is still the scene of great naval activity. The city has a modern fire department with modern up-to-date equipment. Among this equipment the E & J Resuscitator has clearly demonstrated its value and superiority in life-saving as it has in so many other communities throughout New England.

The E & J RESUSCITATOR INHALATOR and ASPIRATOR

Is the Preeminent Preference of Almost 500 Users for Infant and Adult Resuscitation in Emergency Life-Saving.

E & J MANUFACTURING CO., GLENDALE, CALIF.

Drexel Bldg. Philadelphia — 17 East 42nd St. New York City — 539 Fernando St. Pittsburgh — 3960 Grandy Ave. Detroit, Mich. — 581 Boylston St. Boston — 2144 No. Springfield Ave. Chicago — 2032 W. 25th Ave., Denver, Colorado — 5005 Euclid Ave., Cleveland, Ohio

Pioneers and Specialists in Mechanical Artificial Respiration

END TROUBLES HERE

"UNDER-THE-HOOD" PRIMER

YOUR ENGINE HEAT PREVENTS *FROST and FREEZING*

Dependability . . . assurance of positive action . . . nothing means more to the firemen. Years of research gave BARTON-AMERICAN the answers for solving the troubles of ordinary primers. Compare a BARTON - AMERICAN VACUUM PRIMER with old-fashioned rotary or exhaust type primers. BARTON-AMERICAN Primers do a better job *ALL OF THE TIME* . . . meeting UNDERWRITERS' priming time requirements. Has positive automatic safety trap which prevents flooding of engine by water.

ALL BARTON - AMERICAN FIRE PUMPS have Vacuum Primers as standard equipment.

When you want a Bear for Work

AMERICAN-MARSH PUMPS, INC.

BATTLE CREEK, MICHIGAN, U. S. A.

We shall appreciate your mentioning FIRE ENGINEERING *when writing advertisers*

Fire and Police Retain Radio Channels

In a Public Notice (Docket 6651) released by the Federal Communications Commission, it is disclosed that the Commission held hearings on a petition of the Zenith Radio Corporation and the General Electric Company to change the allocations and add the 42 to 50 MC Band to the allocations already made to F.M. (Frequency Modulation) Broadcasting in the 88 to 108 MC Band.

Representatives of the Emergency Services—Fire and Police—appeared before the Commission in opposition to this request on the grounds that these channels have been allocated to the Fire and Police Services under the FCC's new allocation program (previously announced in FIRE ENGINEERING).

As a result of the protest advanced by the Emergency Services the Federal Communications Commission on January 24 last, announced that it had denied the petition of the F. M. broadcasting companies. It is understood the Commission will later announce its denial in detail. Meanwhile, the Emergency Services—Fire and Police—are expected to retain the radio channels allocated to them last year.

Cooperative Efforts Control Vegas Army Air Field Fire

Further details concerning the night fire at the Las Vegas Army Air Field, Las Vegas, Nevada, which razed a large student mess hall and threatened structures over a wide area, have been received from a correspondent of FIRE ENGINEERING.

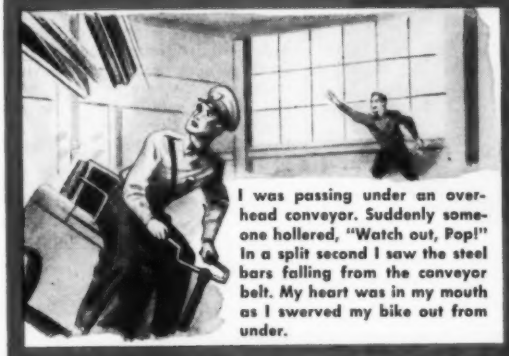
Newspaper accounts stressed the cooperation between the two air field forces and the Las Vegas municipal departments, the latter commanded by Chief Harold Case. The city rushed its largest pumper to the scene, when aid was requested and laid 750-feet of 2½-inch hose.

Our correspondent, Edward J. Wise, Crew Chief, Fire Department, Indian Springs Army Airfield, located 46 miles out in the Nevada desert, writes that two of the contributing reasons for the loss of the mess hall were (1) the delayed alarm and (2) the fact that the air base fire force is greatly undermanned. As it was, he reports the fire-fighters did an excellent job in protecting the exposures. Actually four other fires were started by embers carried on the 30 mile northwest wind, but fast work by the fire-fighters in detailing one Class 125 Army crash truck to patrol the areas adjoining the main body of fire prevented involvement of other buildings and possibly the loss of a greater part of the base.

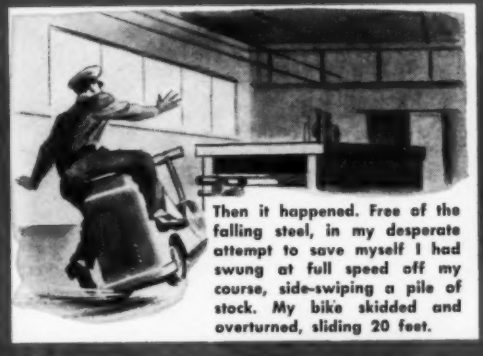
Chief Lynn M. Botts of the Base structural fire department and Chief Frank Garrin of the Base crash fire department worked in close cooperation and their forces, aided by those under Chief Case of Las Vegas, and held the fire to the reported $75,000 loss.

Fire Marshal Scott Back on the Job

Fire Marshal W. J. Scott, K. C. of Ontario, Canada, who has been absent from office for some time as a result of illness, is reported to have recovered and returned to work.

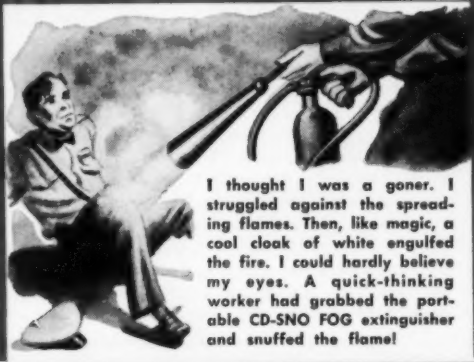


I was passing under an overhead conveyor. Suddenly someone hollered, "Watch out, Pop!" In a split second I saw the steel bars falling from the conveyor belt. My heart was in my mouth as I swerved my bike out from under.



Then it happened. Free of the falling steel, in my desperate attempt to save myself I had swung at full speed off my course, side-swiping a pile of stock. My bike skidded and overturned, sliding 20 feet.

In the collision and slide, the fuel tank was damaged and I was sprayed with gasoline. Sparks ignited the gas. With a flash of flame the lower part of my uniform was ablaze!



I thought I was a goner. I struggled against the spreading flames. Then, like magic, a cool cloak of white engulfed the fire. I could hardly believe my eyes. A quick-thinking worker had grabbed the portable CD-SNO FOG extinguisher and snuffed the flame!

MODEL 1s AK

General's CD-SNO FOG carbon dioxide fire extinguisher is Underwriters' Approved for electrical, gasoline, oil, paint, and chemical fires. Sudden death to fire yet harmless as a baby's breath. Wide range of sizes. Write for descriptive literature. Send us your own most interesting fire experience. A $25.00 prize each month for the best.

THE GENERAL DETROIT CORP.
2270 E. JEFFERSON AVE., DETROIT 7, MICH.
Distributors in principal cities
CHICAGO DALLAS NEW YORK
West Coast Affiliate: The General Pacific Corp.
IF IT'S GENERAL IT'S DEPENDABLE
Remember you need fire extinguishers in your home and automobile

Chief POWHATAN

again urges—

"SENSIBLE LUG"

COUPLINGS

for your New Hose

SENSIBLE in every sense of the word!
Because they cannot catch in ladders, etc.
SENSIBLE lugs are designed to glide *over* obstacles.
They cannot wear or mar stacked hose.
They are easier to couple up.
And they are made of sturdy brass.
We have for over 50 years believed nothing is too good for the fire service. We make and sell nothing but the finest fire equipment money can buy.
Write for our complete list of fire fighting products.

POWHATAN BRASS and IRON WORKS
RANSON, WEST VIRGINIA
Phones 93 & 94 Charles Town, West Virginia
Established 1892

Echoes of the War

By Roi B. Woolley

Army's Smoke Makers Tested for Protecting Crops

It is disclosed that smoke apparatus developed by the Army to hide troop movements will be tested for possible use in protecting crops against frost and insects.

In March, the War Department announced that sixteen mechanical smoke generators are being borrowed by the Agriculture Department for tests in fruit, cotton, tobacco and wheat producing areas. The idea is to determine whether a smoke blanket over a wide area can prevent night dissipation of ground heat and thus ward off frost. Similar but smaller smoke makers have been used by citrus growers for smoke blankets.

* * *

Sabotage Hinted in Ship Fires

On March 25, fire in the engine room of the 7,998-ton "Fresno Star" at London's docks burned thirteen members of the crew, some seriously. The fire, "of undetermined origin", lasted about an hour before being controlled. The ship, of British registry, was loading a cargo for South America.

The same day fire was discovered on two large American ships on the Scheldt Estuary, and the cargo of one was destroyed by water. A load of livestock feed on the "Cape Lilibeo", bound from Buenos Aires to Antwerp, was destroyed by water used to extinguish the flames. The cause of this fire was not stated. The second ship to suffer fire was the "Thomas Jefferson" which had a hold swept by a blaze. The ship was bringing a load of coal from Pensacola, Fla.

* * *

Mystery Fire on Queen Elizabeth

Security precautions almost on a wartime scale were imposed at Southampton, Eng., early in March, following a fire on the 85,000-ton liner "Queen Elizabeth" that seriously damaged a small isolation hospital on the promenade deck.

But for the promptness of two of the ship's crew, who discovered the fire, and the fact that a wind was blowing offshore, the outbreak would have been much more serious. The alarm brought fire brigades racing from twenty miles away and fireboats across from Isle of Wight. Their concerted efforts extinguished the fire after an hour and a half's work.

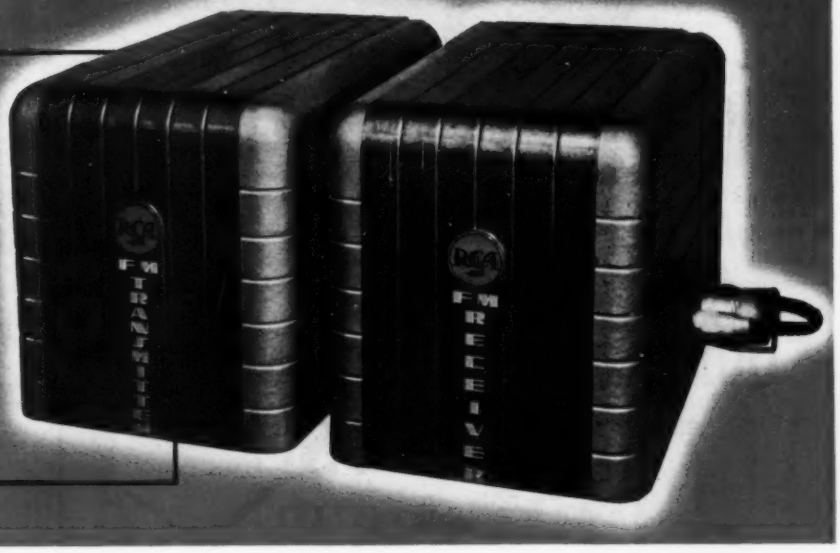
The isolation hospital, a wooden structure, and fifteen feet of the boat deck, above, were damaged. Steel work was twisted and plates were buckled. Smoke and fumes filled the giant liner and deck corridors were awash with the millions of gallons of water poured into the ship. Although she listed from the weight of water, she did not capsize.

Police, fire and shipping officials investigated the fire, which started in hospital stores, and the statement was made that, although its origin was a mystery, "certain opinions about sabotage have been expressed". The ship had reached Southampton on the previous Wednesday to be refitted for the Cunard's passenger service.

The fire on the "Queen Elizabeth"

NEW equipment for NEW allocations

RCA's new 40-watt FM transmitter and FM receiver for 152-162 Mc operation



RECENT tests conducted by RCA using this new FM 152-162 Mc equipment were referred to by the press as "truly amazing . . . spectacular . . . an outstanding event."

Messages came through loud and clear even in locations usually inaccessible to signals . . . such as under steel elevated structures, between tall buildings, in tunnels, and beneath underpasses. There was a complete absence of interference from street cars, power lines, and ignition bursts from passing cars and trucks. A good solid signal was obtained within a 20-mile radius.

As penetrating ability rather than range is the outstanding characteristic of this new equipment, it is particularly well suited for congested city areas, small counties, locations where noise is high at low frequencies, and areas where signals from distant stations ordinarily cause serious interference.

The mobile transmitter is a crystal-controlled, phase-modulated type using a plus or minus 40-kc swing for 100 per cent modulation. Output is approximately 40 watts. The receiver is a double super-heterodyne with a sensitivity of 20 db quieting for 3 microvolts input. An externally mounted dynamotor is used for the power supply. (See picture lower left.)

Other outstanding features include: an extremely small antenna (see picture lower right), good looks, small size (plenty of storage space left in trunk compartment), light weight, low battery drain, fixed tuning to withstand vibration, "noise-squelch" circuits to eliminate background noise during standby, ease of operation (special training not required), and an easy-to-get-at construction (no special tools required).

Here, we believe, is a real opportunity to improve many communications systems. Write to Dept. 33-F for further information.

Field tests proved its power to penetrate —strong, clear signals even in heretofore "dead-spot" areas.

Only a small antenna is required with this 152-162 mc equipment—won't snag on trees or underpasses.

RCA

COMMUNICATIONS EQUIPMENT

RADIO CORPORATION of AMERICA

ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N.J.

followed a number of damaging blazes aboard ships in English ports, most of them of undetermined origin. On March 1, a fire among 1,000 bales of cotton aboard the 11,055-ton Swedish liner "Drottingholm" was controlled after a hard battle in which three firemen were overcome and passengers and crew had to be evacuated from the vessel. Dockers, unloading mail, discovered the fire shortly after midnight.

On March 2, the German prize ship "Empire Waveney," formerly the luxury liner "Milwaukee" was abandoned to flames at a loss of more than $8,000,000, and police hinted that the ship, the fifth to catch fire in Liverpool Harbor in thirty-six hours, might have been the victim of saboteurs.

The blaze, fed by exploding fuel tanks in the hold, burned for two days. The fire started on the 16,754-ton liner early the night of March 1, and firemen were forced to abandon the ship when it heeled over against a quay side.

* * *

Hot Off the News Ticker

The Brazilian S. S. Pocone has been repaired after being salvaged from the bottom of New York harbor. She was scuttled, in 1941, to douse a fire in her coal bunkers. . . . Frank J. McMullen, Kings County politician, who declared that Fort Lafayette (N. Y. C.) was "filled to capacity with live ammunition", endangering the lives of residents of the Bay Ridge section of Brooklyn, introduced a bill in the State Legislature to have explosives removed. . . . When the U. S. Liberty Ship Nathaniel Bacon struck two mines off Civitavecchia all but two of the fifty men aboard were reported saved. The ship, which was loaded with UNRRA supplies, burst into flames after striking the mines and was beached in heavy seas. Some survivors were badly injured. . . . A munitions dump near Trento, Italy, blew up, injuring a number of British soldiers. . . . Five members of the Jersey City Fire Department, including a battalion chief, were overcome by smoke and chemical fumes while battling a fire in the forward compartment of a cargo ship moored there. Acetylene torch believed the cause of the fire. . . . Less than a month later a fire in a refrigerator hold of the Russian freighter Marshal Govorov gave Jersey City firefighters, aided by New York's fireboat "Fire Fighter", nearly a day's hard work. No one was seriously injured, and the ship was saved. . . . General MacArthur's headquarters has revealed that more than 300,000 casualties of all types resulted from the atom-bombing of Hiroshima, first Jap city blasted with the new weapon. Of this number, 78,000 were killed, 14,000 missing, 8,000 were injured seriously and 27,000 were injured slightly.

* * *

Anent the Atom

Stories about the atom bomb, the atomic tests, and the next "atom war" continue to percolate from the press. Here are a few that may interest our readers:

"First Atomic Bomb Claim Filed"—In what is said to be the first case, Walter Edwards, a mechanic, formerly employed at Oak Ridge, Tenn., in the manufacture of the atom bomb, has filed suit in circuit court, Knoxville, Tenn., against his Oak Ridge employers, Carbide and Carbon Chemical Corp. for $20,000 damages for what is described as "a chemical irritation of the respiratory system contracted from exposure to poisonous gases and radio activity in the manufacture of the atom bomb." (Press)

"30 Atom Bombs Seen Wiping Out City"—New York City could be wiped out by 30 atomic bombs, says Dr. Isadore I. Rabi, executive director Department of Physics, New York University. (Press)

"Atom Bomb Fear Decried"—Britain would surely survive another war, despite the atom bomb, Prof. Sir Henry Tizard, president of Magdalen College, Oxford, eminent research scientist, declares, discounting the belief that there was no answer to the atom bomb. (Press)

"Effect of Atomic Bomb Exaggerated"—says Maj. Alexander de Seversky after returning from a tour of Pacific war theatres. He contends that reports of direct damage to Hiroshima and Nagasaki by atomic bombs are exaggerated and that had these cities been of steel and concrete construction, comparable to New York and Chicago the damage inflicted would have been no greater than that of a 10-ton blockbuster bomb. "The destruction" says Maj. de Severesky, "was entirely incendiary in character. The deaths were due almost entirely to fire and falling structures. The atom-bomb blast collapsed the flimsey, half-rotted and top-heavy wooden houses, causing thousands of fires, which immediately combined into one huge bonfire. The victims were caught and pinned in the debris where most of them perished in the many hours that the conflagration

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raged. Concrete buildings, even in the very heart of the bomb explosions, remained erect, though most of them were gutted by the spreading fire. More than that, even flag poles, siren devices and other fragile objects on such buildings remained erect. There were no traces of unusual heat effects even on the tallest of the surviving buildings." (Steel)

"WARNS OF SAFETY IN ATOM PROJECTS"—In St. Louis, doctors were urged to see to it that workers' safety is assured in any future industrial cost-cutting moves designed to make atomic energy compete with coal and water as a source of electric supply. Dr. William F. Bale, of the University of Rochester, reminded the 11th meeting of the American Assn. for the Advancement of Science, that wartime workers on the atomic bomb projects were protected from radiations and other hazards by expensive precautionary measures. (Press)

"SCIENTISTS STUDY WORKER HAZARDS IN MAKING ATOM BOMBS"—It is revealed that scientists of the Oak Ridge medical research center are prepared to make a study that may determine some of the occupational hazards of workers in making and assembling atomic bombs and the production of uranium. Sixty Herford cattle that were within 25 miles of the explosion point of the initial atomic bomb explosion test in New Mexico, have been shipped to Oak Ridge. The cattle are said to have shed their hair following the explosion, and when it grew back it was white instead of red. The cattle are also said to appear wasted. Scientists are said to hope to find clues to greater safety precautions for people working with atomic energy by a study of the condition of the cattle. (Weekly Underwriter)

Record High Fire Losses Predicted

If the current rate of fire losses continues unchecked, the damage this year will exceed $600,000,000 and make 1946 more costly than the years of the great San Francisco and Chicago fires, Frank A. Christensen, president of the National Board of Fire Underwriters declared in a statement issued on the eve of the Board's eightieth anniversary meeting held at the Waldorf Astoria Hotel in May.

"The appalling rate of increase in our national fire losses calls for the attention of everyone interested in the general social and economic welfare of our country", said Mr. Christensen.

Estimating the "terrific waste" through fires of the last twelve months at nearly half a billion dollars, he added that a large part of it could have been prevented.

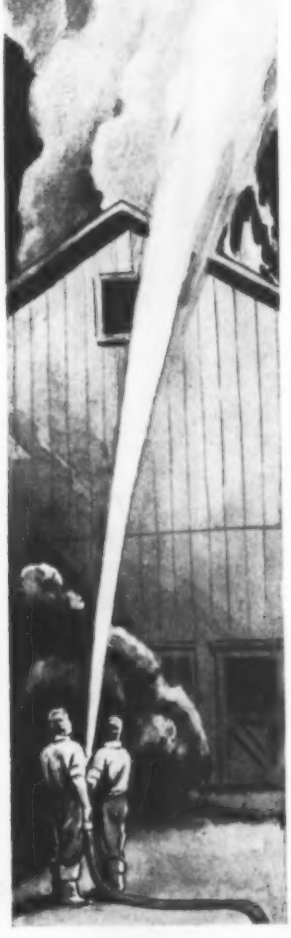
"For eight years now this evidence of national carelessness and inattention has been growing at a faster rate every year," he said. "This devastating waste of preventable fire will have to be slowed down soon. We are a wealthy country but no country, however rich, can escape the consequences of such a drain on vital living facilities."

Loss of life was termed "equally shocking". "An average of twenty-seven lives are lost in fires every day," Mr. Christensen said (last month FIRE ENGINEERING released figures to show that U. S. and Canadian life loss figures are being revised upward).

"With critical shortages in housing, building materials, clothing, food, and the very necessities of life, in America and everywhere, it is imperative that the people know the facts and their significance about the great toll on the national economy because of our national inattention at the moment. Preventable fire loss, added to other preventable waste, is bleeding us white . . . intensifying our shortages of housing and commodities," he said, and he expressed the hope that "when the people know the facts, they will substitute watchfulness for carelessness, caution for recklessness and the 'I don't care attitude' for the kind of spirit that won the war . . . the low rate of fire waste in cantonments and installations of the armed services, and in inspected munitions factories, shows what the people are capable of doing by united effort toward caution and watchfulness, if they know the dangers and have the will to do."

Vacation Rules at Baltimore

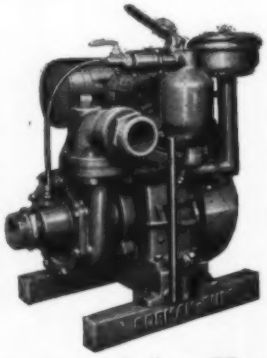
New vacation rules announced by the Baltimore Board of Fire Commissioners give firemen 22 days. The Chief Engineer now has 33 days; Deputies, 29; Battalion Chiefs, Supt. of Pumping Station and Asst. Supt. of Machinery, 26; Captains and Lieuts, 24; Supt. of Telegraph, 29; Asst. Supt. of Telegraph, 26; Asst. to the Supt. of telephone operators and linemen, 22 days, and linemen's helpers, 18 days.—OTIS SMITH.



Delay in reaching the fire with the pumper might easily result in the loss of a building. As an auxiliary fire fighting weapon the Gorman-Rupp "Dual Fire Fighter" often proves of great value. Not only will it serve as a booster pump relaying water which is inaccessible to the pumper but may be carried to a scene of action difficult of access for the pumper and used to fight the fire direct. It might thus save valuable time and possible damage to the pumper.

The Dual Fire Fighter will also dewater basements without damage to the pump as it will handle anything which will pass the intake screen.

- Powered with a dependable four cylinder engine.
- Delivers 170 gallons at 30 pounds to the pumper for two 1½ inch lines.
- In fighting direct throws 100 gallons at 70 pounds or 80 gallons at 80 pounds at the pump.
- Easily carried by two men (weight 150 lbs.)
- Price surprisingly low -- get one now. Don't Wait.



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Persons in the News

Jay Stevens Feted

About 400 Alameda and Contra Costa (Calif.) firemen and their wives gathered in Orinda, Calif., at an early outdoor breakfast, to participate in the dedication of the site of the future home of Jay Stevens, assistant general manager of the National Board of Fire Underwriters and former Fire Marshal of the State of California.

Governor Earl Warren was the honor guest and principal speaker. Fire Marshal Joe R. Yockers and Fire Chiefs Albert Sullivan of San Francisco; George Robinson, Yuma, Ariz. (who flew in with the grapefruit for the breakfast); Clyde Canning, Middletown, Utah; Tom Lane, Alameda (Secretary of the Alameda County and California State Firemen's Associations), and Chief William Meinheit of Berkeley, were prominent among the officials to honor the West Coast's widely known and popular friend of the fire service.

Chief Frank Sandy, of Oakland, acted as master of ceremonies.

Hayes Proposed for Post in Jefferson County, N. Y.

Designation of Charles W. Hayes, Watertown, N. Y., Secretary of the Fire Chiefs Association of Jefferson County, as county fire marshal, acting as instructor and co-operating with the county fire departments and assisting in the investigation of arson cases, was recommended to the county board of supervisors by the Fire Chiefs Association of Jefferson County at its May meeting.

Should the board of supervisors of the county accept the Fire Chiefs' recommendations, it is expected that a bill will be entered in Albany to make the appointment legally valid.

In reporting to the Association at its meeting, Secretary Hayes said that thirteen alarms had been received over the county's mutual aid system since January 1, 1946.

City Honors Chief Hofstetter

The City Council of Evanston, Ill., recently paid signal honor to Chief A. N. Hofstetter by presenting him with a check for $500 in recognition of his forty-five years of continuous service in the Evanston Fire Department.

Mayor Ingraham, in making the presentation, lauded the Chief for his faithful, untiring and efficient service and expressed the hope that the Chief would continue to carry on for many years to come.

EDWARD M. RHOADES

Ed. O'Neill's Daughter Weds

Patricia Weldon O'Neill, daughter of Edward E. O'Neill was married to Mr. Charles S. Westlake, Jr., on May 11, at St. Thomas Church, New York City. Mr. O'Neill is President of the American-LaFrance-Foamite Corporation, Elmira, N. Y.

Chief King Retires

Chief John C. King of the Hartford, Conn., Fire Department, who has been ill since he directed rescue attempts at the Niles Street Hospital fire in that city on last Christmas Eve, when 21 persons lost their lives, retired from the Department on March 1, after 37 years service.

Chief King was named a substitute fireman on September 21, 1909, and a regular on February 13, 1911. On November 20, 1946 he was advanced to a Lieutenant and promoted to a Captain, June 30, 1919.

Other successive appointments in his departmental career were Acting Deputy Chief, Fifth Deputy Chief, First Deputy Chief and Chief of Department on March 1, 1942, replacing the late Chief Michael T. Keena.

Chief King was in command of the disastrous Barnum & Bailey circus fire in Hartford on July 6, 1944 that took 169 lives.

TOM MAGNER

Toledo Fire Chief Retires

Fred T. Schlorf, for the past several years Chief of the Toledo, Ohio, Fire Department, retired on pension April 5, it was announced by Maurice Meyer, safety director of that city.

A tentative date has been set for the publication of the announcement of civil service examination for his successor. Meantime the Acting Chief of Department is Henry Wintermantle. He, with District Chiefs Patrick J. Daly and Joseph W. McLaughlin, are eligible to take the examination.

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The Coat:

- Adjustable collar strap
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- Lining attached with quick snap buttons
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Regular Firemen's Boots AVAILABLE!

Regular Firemen's Boots, ¾ length, reinforced instep, felt linings, available now. Available soon, regular Firemen's Knee Boots. See your local Midwestern dealer or write the factory.

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The Pants:

- Lining held by snap buttons
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MACKINAW, ILLINOIS

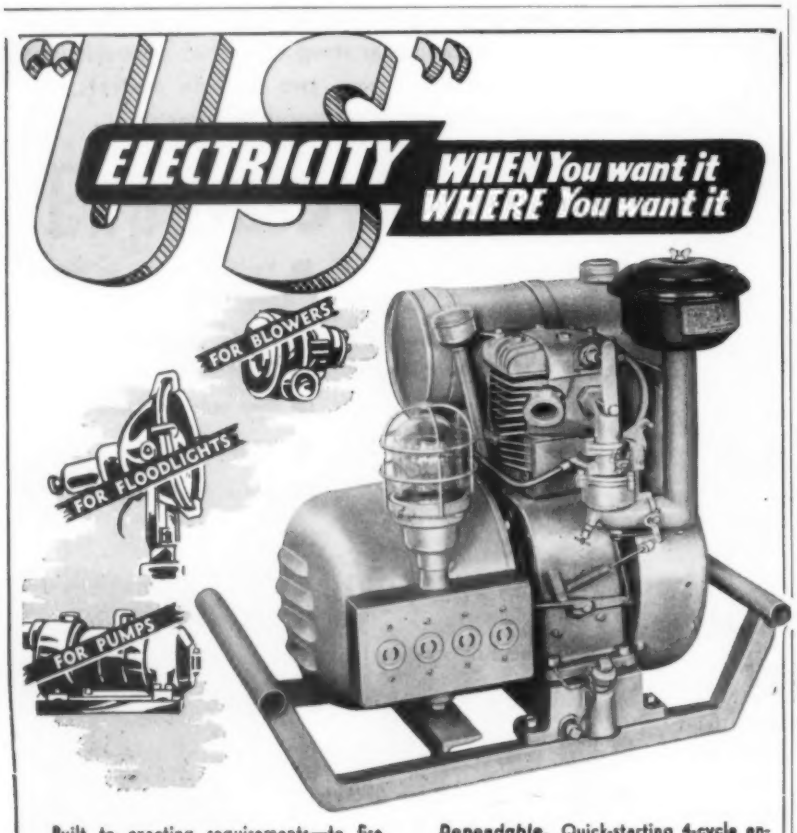
Chief Schlorf's retirement climaxes a long and busy career in the city's fire department, during which the chief endeared himself to hosts of friends throughout the country.

John Rothrum Is Dead

John C. Rothrum, 68, chief of the fire prevention bureau, Kansas City, Mo., and a city fireman for twenty-five years, died March 27, 1946.

Rothrum gained notice in 1937 when he sued the city for back payment of salary withheld from him under an arbitrary "leave of absence" plan announced by a former city manager, now deceased. His case, involving about $1,000, was heard in Jackson County Circuit Court, which ruled for the city. His lawyers appealed the case, and the Missouri Supreme Court ruled in his favor Jan. 23, 1940. The decision hinged on the validity of applications for leave of absence which firemen were required to sign by the city administration to authorize pay reduction.

Mr. Rothrum joined the fire insurance patrol in 1910 and switched to the fire department, two years later. In 1937, during a reduction of the fire department by the city manager, he resigned. Two years ago, following the death of Emmett A. Scanlon, former fire prevention bureau chief, Mr. Rothrum was recalled from retirement to fill the position, which he held until about six months ago when his health began to fail.



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Chief Arthur J. Dillon Dies

Fire officers from several communities in the Southern New York Tier served as active and honorary pallbearers at the funeral services for Fire Chief Arthur J. Dillon, whose death on March 11 ended a career of forty years as a fireman and ten as Chief of the Binghamton Fire Department.

Chief Dillon died March 7, at the age of 62. Members of The International Association of Fire Fighters, Local 729, adopted a resolution mourning the loss of their chief.

Fred Baer Dies Suddenly

Fred Baer, president of the International Association of Fire Fighters, died in Topeka, Kans., while addressing the Kansas State Firemen's Association, May 15. His death was due to a heart attack.

Mr. Baer had been president of the AFL union for twenty-seven years, and previously served thirteen years with the Kansas City, Mo., fire department.

In 1927 Mr. Baer introduced a resolution before the convention of the American Federation of Labor calling for an eight-hour day for New York City firemen. This was adopted. In 1929 he was appointed by the then Secretary of Commerce, Robert P. Lamont, as a member of the committee for the relief of traffic congestion.

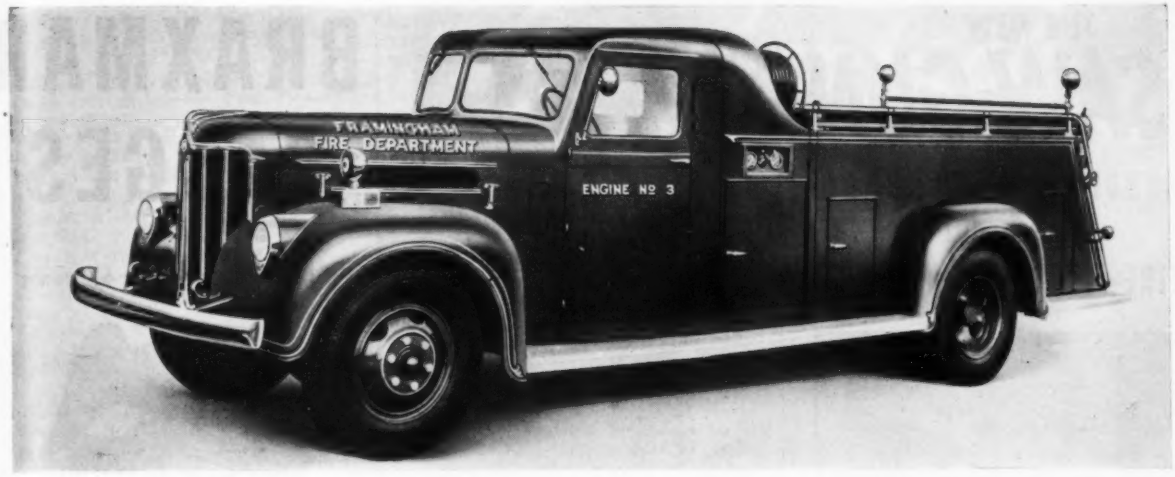
John P. Redmond

In 1934 Mr. Baer placed before the executive council of the AFL the reported refusal of the Mayor of Atlantic City to permit firemen to join the union. In 1944 he urged New York firemen to sign the special waivers required of them by Mayor LaGuardia as a condition of eligibility for a cost-living pay raise of $420 year. The waivers required the signers to discontinue the suit brought by the Uniformed Firemen's Association to contest the validity of a departmental order requiring them to perform extra tours of duty without pay.

Mr. Baer was active in efforts to unionize members of the fire service as far back as 1919, when he led a drive to that end in Jersey City.

John P. Redmond New President

The Executive Committee of the International Association of Fire Fighters met recently and named John P. Redmond, Division Fire Marshal of Chicago, as President of the Association.



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Firemen equipped with this handy tool can now get at the fire quickly. Can cut openings into obstructions regardless of their material. Cuts rapidly through heavy gauge steel. No need to waste precious time removing steel gratings . . . cut them out of the way with this amazing portable tool. Does away with slow, cumbersome, dangerous gas cutting torches, together with their long lines of hose and heavy tanks.

Progressive fire-chiefs who know the importance of getting at a fire *fast*—who want a quicker means of getting to entrapped persons, will add the Saw-Gun as standard equipment.

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Saw-Gun Division
2533 E. 73rd Street, Chicago 49, Ill.

Chief Redmond entered the Chicago Fire Department in 1912, and held every position up to and including Division Fire Marshal. In 1930 he was elected Vice President of the Association for the 8th District, which position he has held since that time. When he was elected, there were thirty-three locals in the 8th District. Today there are 189.

Charles H. Lum Dead

Charles H. Lum, a member of the staff of the National Board of Fire Underwriters for 42 years and for 24 years Assistant General Manager of the Board at its San Francisco office, died May 28, 1946, at the Doctor's Hospital in New York following a long illness.

Mr. Lum was born in Chatham, New Jersey, July 23, 1873. He was a graduate of Columbia University, School of Mines, in 1895 and later of the School of Architecture. He was in business for himself for six years and entered the employ of the National Board May 3, 1903. He was a member of the engineering staff of the Board and then in charge of the Actuarial Bureau until his transfer to San Francisco in 1921 when the Pacific Coast office was opened. He was retired as of September 1, 1945.

He was well and favorably known on the Pacific Coast and the success of the National Board in that area was largely due to his untiring efforts and outstanding ability.

He is survived by his wife, Mabelle Terry Lum, a daughter Virginia, wife of Charles N. Niebling, two sisters and three brothers.

Appointments and Promotions

The Fire Chiefs Council of Suffolk County, N. Y., re-elected John L. Barry of Patchogue, L. I., president at its annual meeting in Lake Street fire headquarters, Patchogue.

* * *

The Nassau County Fire Chiefs Council, Nassau County, N. Y., elected Harry Borley, ex-chief of the Hicksville, L. I., Fire Department president of the Council at its annual meeting held in Hicksville.

* * *

The entire staff of the Garden City, N. Y., Fire Department was retained intact in an unprecedented election. For the second year Chief Walter W. Barnes will command. Abbott Dibblee is First Assistant; and Frederick Usbeck, Second Assistant.

* * *

Forty-two officers of the Hempstead, N. Y., Fire Department were installed following the annual election. William Eiser is Chief, Coe S. Clowes and George A. Matthews First and Second Assistants, respectively.

* * *

Frank G. Stocker, veteran of twenty-nine years' service has been advanced to Assistant Chief of that city's fire department, following the elevation of Charles E. Lane as Fire Chief to succeed Thomas Gordon. Stocker entered the department in 1917 and has been a captain for the last eight years.

* * *

William P. Rollings has been advanced from Battalion to Deputy Chief of the Hackensack, N. J. Fire Department, a new post established by the city.

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BRAXMAR BADGES STANDARD WITH FIREMEN FOR 67 YEARS—WE CAN NOW SUPPLY NICKEL AND CHROME.

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Lawrence Miller was re-elected Chief of the Paullina, Ia., Fire Department. Henry Kuiper is Assistant Chief.

* * *

Albert B. Walther was installed as Chief, Russell Kupfer, First Deputy and Felix Miles, Second Deputy of the Malverne, N. Y., Fire Department. An ex-chief's badge was presented to retiring Chief William J. Scully.

* * *

Chief A. McC. Marsh of the Columbia, S. C. Fire Department was elected President of the South Carolina Fire Chiefs' Association at its first annual meeting held in Columbia, earlier this year. Chief R. B. McCutcheon of Bishopville was elected vice-president and Chief J. D. Bone of Anderson was named secretary-treasurer.

* * *

William R. Hart was named chairman of a permanent fire prevention committee of six by the Iowa City Chamber of Commerce, following suggestions of the underwriters.

* * *

James Brennan was elected Chief of the Larchmont, N. Y., Fire Department. A former deputy chief, he recently returned from military service.

* * *

Chief Engineer Ambrose Saricks, Deputy Chiefs Stanley Williams and Lester Daley and 22 other officers of Wilkes-Barre, Pa., Bureau of Fire were sworn in for two more years on January 18 at an impressive ceremony in City Hall. Saricks has been chief officer for 11 years under two mayors. (Thanks Sheldon Wintermute.)

* * *

Retirements

Deputy Chief John Gunn of the New York City Fire Department, Headquarters Staff, retired June 14 on pension, having performed more than twenty-five years of service. Chief Gunn, familiarly known as "Johnny" and a widely known and popular officer has not announced his future plans.

* * *

Battalion Chief H. E. Dikeman of San Pedro, Calif., for thirty years a member of the Los Angeles Fire Department has retired.

* * *

Can't Keep a Good Man Down

George Turner, who lost both legs in a fire apparatus collision in 1935, was named acting chief of police of Pittston City, Pa., early in February.

Turner, who had been serving as police clerk since the fire department accident, was elevated when Police Chief Leo A. Tierney requested a 60-day leave of absence.

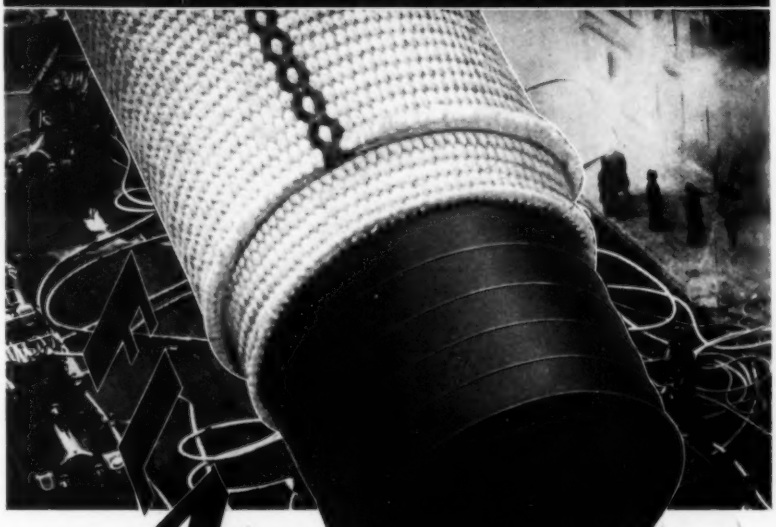
Turner was a hoseman with Niagara Engine of city fire bureau when the accident occurred. He was wedged between his own engine and that of another that was unable to stop on slippery pavement. (Thanks S. C. Wintermute)

The Paris Fire Department

From Louis Brouwet, Brussels, Belgium, comes a letter to the editor, which says in part: "While waiting the opportunity to be able to send you any more interesting information regarding the fire services of our old continent, for your further assistance, I beg to send herewith some information relat-

(*Continued on page* 442)

Crackerjack
MUNICIPAL FIRE HOSE



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CRACKERJACK fire hose starts out in life with a flawless jacket, and many are still that way after 20 years of active service. They are woven from the finest premium long staple cotton yarn twisted to our own rigid specifications. Care in producing a BALANCED WEAVE equalizes tension on each strand so pressure is evenly distributed. CRACKERJACK'S strength-giving filler strand is completely protected behind a uniform cotton wall of warp strands. The BALANCED WEAVE, perfect fit, and inter-action of the two jackets provide maximum strength and prevents undue twist and elongation under pressure.

FLAWLESS
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FLAWLESS

for extra life and strength
for minimum elongation and twist
to prevent snagging and "spot wearing"

The AMERICAN RUBBER Mfg. Co.
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Pipe Line
Accessories

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Conform to American Water Works Association Specifications. Approved and listed by Underwriters' Laboratories and Associated Factory Mutuals. Well known and widely used for many years.

SPECIAL TRAFFIC MODEL (shown at right) is designed to yield at ground line under impact, repair being simply renewal of breakable bolts and breakable coupling on stem. Dry top, revolving head, easy to lubricate. High efficiency because barrel diameter not reduced and there are no working parts or obstructions in waterway.

VALVES: A. W. W. A. types, iron body, bronze mounted with double-disc parallel seat or solid wedge type. Non-rising stem, outside screw and yoke; or with sliding stem and lever. Also furnished hydraulically operated. Square Bottom type operates in any position. All are rugged and dependable, made of best material with highest quality workmanship.

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Manufacturers' Announcements

"On Watch" Fire Alarm System

The "On Watch" Fire Alarm System is designed to thermostatically discover and report fire, and to deliver an audible and visual signal of notification.

In the "On Watch" system, detectors, or thermostats may be located at danger points of home or other structure, to operate at a pre-determined temperature rise. Once that temperature is reached a circuit is broken, thus actuating a siren and a flashing light which is expected to notify both occupants of the structure and/or passersby and watchmen of the fire.

The device includes a receptacle, somewhat similar to the orthodox fire alarm box, made of weather resisting materials, with a transparent front on which is lettered "FIRE CALL FIRE DEPT." A similar panel at one side has the lettering "FIRE." When the circuit is opened a flasher light inside the cabinet activates the colored flasher signs, while a loud squawker calls attention to the "box" and the flashing signals. The visible and audible signals continue until some help arrives to shut them off. This is accomplished by pressing a button on the side of the cabinet, plainly identified for that purpose.

The "On Watch" system was designed by Chief J. J. O'Leary and is the product of the O'Leary Fire Prevention Co., 126 E. 44th St., New York, N. Y.

Akron Brass Buys Fog Nozzle

Akron Brass Mfg. Company, Inc., of Wooster, Ohio, well-known manufacturer of fire fighting equipment, has purchased the physical assets and exclusive patent rights of the Fog Nozzle Company of Los Angeles, California. Hereafter Fog Nozzle Company will be operated under the name Fog Nozzle International, Inc., as a separate subsidiary wholly owned by Akron Brass.

H. Louis Stettler

T. W. Burnam, manager of Fog Nozzle Company, who developed many of the patent designs used in Fog Nozzle products, will be a consulting engineer under the Akron Brass management.

Fog Nozzle Company, in business for twenty years, pioneered the use of fog in fire fighting. The original design for their equipment, marketed under the trade name "Fognozl", was devised by Captain Glenn G. Griswold, killed in action in Italy during World War II. Used on a large scale by the United States Navy, this equipment established a remarkable record in handling ship fires, notably on aircraft carriers.

From 1942 to December, 1945, Fog Nozzle Company were primarily engaged in the production of nozzles for the Armed Services and have just completed their reconversion program.

With the acquisition of Fog Nozzle Company, Akron Brass not only increases its line of products, but also broadens the sales possibilities through the industrial applications of Fog Nozzle products and kindred Akron Brass products. The combined line will also increase coverage to municipalities.

A recent invention of Fog Nozzle Company, now to be marketed by Akron Brass, is a water fog automatic sprinkler head for installation in industrial plants and other buildings, to cover special fire hazards.

H. Louis Stettler, Jr., is Executive Vice President and General Manager of Akron Brass Mfg. Company, Inc.; A. J. Ratzel, Assistant to the General Manager and Assistant Secretary, J. B. Robertson, Plant Superintendent; L. W. Graves, Municipal Sales Manager, and W. H. Steigerwald, Industrial Sales Manager, are also actively engaged in the operation of the company.

New B. F. Goodrich Catalog

The B. F. Goodrich Company, Akron, Ohio, has just issued a new 10-page catalog section on its complete line of industrial protective clothing. This pictures and describes all types for firemen, police, public utility, construction workers and other occupations.

Recent additions to the company's lines are a new vinyl-resin industrial coat that cannot be stained by oil or grease; synthetic coated clothing said to be superior to pre-war products, including an apron coated with Ameripol, the company's exclusive synthetic rubber which is reported proof against practically every acid and solvent used commercially.

New Doray Catalog

The Doray Fire Equipment Co., 1924 Valley Drive, Syracuse, N. Y., has issued a new catalog listing "Everything From a Gasket to a Truck" in its thirty-four pages. The company is a distributor of numerous lines of nationally known fire equipment, and of Oren fire apparatus.

C. L. Johnson Dugas Chicago Manager

Clarence L. Johnson, a member of the sales staff at the Dugas office at Chicago for Ansul Chemical Company, Marinette, Wis., was appointed manager of that office, January 1, 1946. He succeeds Floyd M. Duvall, who has been transferred to Indianapolis where he will be district manager of refrigeration sales.

Before join the Ansul organization, Johnson was safety supervisor of Sherwin-Williams Company, and prior to that was engaged in similar work for LaSalle Steel Company and Republic Steel Corporation.

CD-Sno Fog Extinguishers

The General Detroit Corp. and the General Pacific Corp.. announce a carbon dioxide portable fire extinguisher in a complete range of sizes from 2 to 100

lbs., to be marketed under the trade-name "CD-Sno Fog." The appliance is one of a complete line of Underwriters' approved fire extinguishers and allied products.

CD-Sno Fog is especially recommended for fighting fires in electrical equipment, oil, grease and flammable liquids. It is made in 2, 4, 7½, 10, 15, 20, 50, 75 and 100 lb. sizes. Underwriters' classification for the 15-lb, size is B-1, C-1.

General Detroit Opens New Cleveland Office

The opening of a new Cleveland office of the General Detroit Corp. and the General Pacific Corp., manufacturers of fire extinguishers, motorized

Scott E. Collins

fire apparatus and allied equipment, is announced by E. A. Warren, vice-president in charge of sales.

Scott E. Collins, appointed zone sales manager of the new office, located at 912 Park Building, has been with General Detroit Corp. for four years. The opening of the Cleveland branch will provide more efficient service to Cuyahoga County and is in line with the Corporation's coast to coast general expansion of sales activities.

Cain Goodrich Director of Safety

Thomas J. Cain, Jr., has been appointed director of safety for all Akron plants of The B. F. Goodrich Company, is announced by T. G. Graham, vice-president. He will head an expanded safety program as part of the Industrial Relations department, of which D. D. Reuchow is manager.

Extinguishers Becoming Available

Various types and sizes of fire extinguishers, which during the war were scarce or produced only for the armed forces or war industries, are again becoming available generally, according to G. H. Boucher, vice president of Pyrene Manufacturing Company, Newark, N. J.

They include vaporizing liquid (carbon tetrachloride base) extinguishers of the 1-pt., 1-qt. and 1½-qt. hand-pump and 2-qt. and 1-gal. stored pressure types. Particularly noteworthy, according to Mr. Boucher, is the war-stimulated demand for the 1-quart size for private homes.

There has also been a large pent-up demand for soda-acid type extinguishers but, it is said, steady production of both riveted shell and seamless drawn shell types is reducing the backlog. Imme-

STOP FIRES BEFORE THEY GET OUT OF CONTROL

with INDIAN Fire Pumps

DO YOU REALIZE

that *INDIAN FIRE PUMPS alone* will take care of a great percentage of your calls without laying hose? *(See testimonial below)*

These speedy, portable fire fighters —using only clear water—are the quickest, most economical way to put out roof, chimney, rubbish, room and building fires in their early stages. They are the perfect solution to troublesome grass and brush fires.

"Equally Efficient for Both Inside and Outside Fires"

This letter is typical of the enthusiasm of users of INDIAN FIRE PUMPS:
D. B. Smith & Co.
Utica, N. Y.
For the past 12 years we have stationed on our apparatus *INDIAN FIRE PUMPS* for first aid work in fire extinguishment.
We have used them for open fires and confined fires and find them equally efficient both inside and outside of buildings.
The *INDIAN FIRE PUMP* is a compact, efficient fire fighting machine and, properly and quickly used, will extinguish or control 75% to 80% of all fires.
Very truly yours,
J. N. Sullivan, Commissioner

Patented

D. B. SMITH & CO., 406 Main Street, Utica, N. Y.

PACIFIC COAST AGENTS

HERCULES EQUIPMENT & RUBBER CO.
435 Brannan St., San Francisco, Cal.
MILL & NINE SUPPLY CO.
2700 4th Ave. So. Seattle, Wash.
FRED E. BARNETT CO.
2005 S.E. 9th Ave., Portland, Oregon
FRED E. BARNETT CO.
600 Spring St., Klamath Falls, Ore.
FRED E. BARNETT CO.
Broadway & Harris St., Eureka, Cal.
ROY G. DAVIS CO.
617 E. 3rd St., Los Angeles, Cal.

CANADIAN AGENTS

BINGHAM & HOBBS EQUIP. CO. LTD.
395 W. 5th Ave., Vancouver, B. C.
DUKE EQUIPMENT CO.
297 Duke St., Montreal

HOWE Fire Truck Equipment to Meet Every Service
Established 1872
HOWE FIRE APPARATUS COMPANY, 1402 West 22nd Street, Anderson, Indiana

WENTWORTH
FIREMAN'S UNIFORM CAPS
Union Made **Prompt Delivery**

No. 342

Wentworth Fireman Caps are made of the Highest Quality Standard Materials available and by the Best Skilled Union Craftsmen in all the New and Standard styles. Our 50 years of experience and skilled workmen guarantee you AMERICA'S GREATEST CAP VALUE in all WENTWORTH FIREMAN CAPS.

No. 441
Write direct for latest circular and prices or see your local dealer.

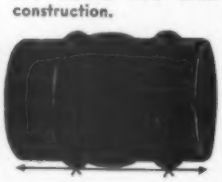
WENTWORTH-FORMAN CO., INC.
21-23 Edinboro St., Boston 11, Mass.
Manufacturers
Fireman Cap Specialists for Over 50 Years

DOUBLE SERVICE
with
BI-LATERAL

This installation shows the position of the rubber lining in BI-LATERAL FIRE HOSE when held in a flattened position between calls into service. This is why we can save a city one replacement, because this hose will give double service of any hose constructed under the old method.

Also we can load 25% more on the apparatus bed, actually making an $8,000 truck loaded with Bi-Lateral construction, cheaper than a $7,000 one loaded with other construction.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze) with the swivel protecting feature.



BI-LATERAL
FIRE HOSE CO.
20 No. Wacker Drive, Chicago, Ill.

diate shipments are being made of 40-gal. extinguishers on wheels.

This same situation is said to exist with foam extinguishers of the riveted and seamless shell types. Wheeled 10-gal. and 40-gal. foam extinguishers are in stock. Gas cartridge extinguishers for use with plain water or anti-freeze solution are being turned out on regular production schedule and rechargers for all types of extinguishers are reported available.

"Food Machinery" Appointments

To better coordinate activities of two Food Machinery divisions manufacturing similar lines of fire fighting and agricultural equipment, two administrative appointments were announced by Paul L. Davies, corporation president. Mr. Howard C. Lisle, former manager of the John Bean Division at Lansing, Mich., will manage the combined operations of the Bean-Cutler Division at San Jose, Calif., and the Lansing Division. He will be succeeded in Lansing by T. O. Eaton, formerly with the General Electric Company at Pittsfield, Mass. Mr. V. H. Matthews will continue as manager of the San Jose Division, and will report directly to Mr. Lisle.

Mr. Eaton joined Food Machinery with a wide experience in engineering, sales, manufacturing and management. He is an engineering graduate of the University of Wisconsin and was with G. E. over twenty-five years, prior to joining Food Machinery, as manager of sales for the Pittsfield section.

Circul-Air Expands

The Circul-Air Corporation, makers of electro-mechanical fire hose dryers, has just completed a new enlarged building, into which their manufacturing facilities have been moved. The new plant is located at 575 East Milwaukee Street, Detroit 2, Mich.

New Thornton Differential Manual

A new manual describing the operation and maintenance of the Thornton Automatic Locking Differential has been issued by Thornton Tandem Company, 8701-79 Grinnell Ave., Detroit 13, Mich.

Big Exhibit Foreseen at Cleveland

The exhibit feature of the annual conference of the International Association of Fire Chiefs, to be held at Cleveland, Ohio, July 23-26 inclusive, is developing into an outstanding one. Chief J. T. Keegan, Chairman of Exhibits, reports the following displays for which reservations have already been made (as of June 1):

Acme Protection Equipment Company.
Akron Brass Mfg. Company, Inc.
American Fire Apparatus Co.
American-La-France-Foamite Corp.
American-Marsh Pumps, Inc.
American Mercantile Co., Inc.
Atlas Safety Equipment Co., Inc.
John Bean Mfg. Co. (Div. Food Machinery Corp.)
Bi-Lateral Fire Hose Co.
Cardox Corporation.
Circul-Air Corp.
C-O-TWO Fire Equipment Co.
Dayton Fire Equipment Co.
Derbyshire Machine Tool Co.
E & J Manufacturing Co.

JANESVILLE QUALITY TURN OUT CLOTHING

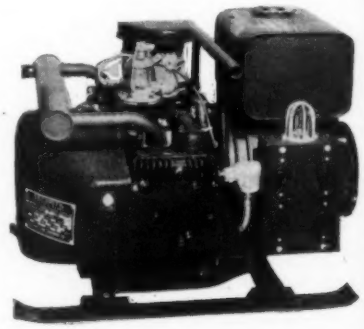
Our turnout suits are giving excellent satisfaction in most of the large fire departments throughout the U. S. and

THERE MUST BE A REASON WHY SO MANY FIREMEN INSIST ON JANESVILLE QUALITY

NOW AVAILABLE

We can now supply old type ¾ Length and Knee Length Felt-lined Firemen's Boots.

JANESVILLE APPAREL CO.
JANESVILLE, WIS.



Designed for Fire Department Service. 25% reserve or better. Magnesium and Chrome Nickel Casting. 4 cycle, Automatic Voltage Regulator, Dependable, Economical, Compact design, Lightweight, and sturdy construction.

From 600 to 10,000 Watt A.C. & D.C. Generator. Projectors and cords.

Write for literature.

SECURITY FIRE EQUIPMENT CO.
1550 Princeton Ave. **Trenton, N. J.**

J. H. Emerson Co.
Federal Telephone & Radio Corp.
The Gamewell Company.
Homelite Corp.
Mine Safety Appliances Company.
Morning Pride Manufacturing Co.
Pyrene Manufacturing Company.
Randolph Laboratories, Inc.
The Rockwood Sprinkler Co.
Scott Aviation Corp.
D. B. Smith & Co.
Ward LaFrance Co. (Div. of Great American Industries).
Waterous Company.
Wooster Brass Company.

With more than a month to go, it is expected that there will be many additions to the above list.

Fatal Hoboken Fire

Fireman Thomas Beatty, 46, of the Hoboken, N. J., Fire Department died after fighting a fire in the basement of a downtown business block in that city. Two other firemen were overcome by smoke and poisonous fumes attributed to burning plastic toys and excelsior packing.

The fire was discovered at 4:40 P.M., at the height of a Saturday afternoon shopping hour, beneath a five and ten cent store evidently having had its origin in cartons of merchandise. The burning stocks, of plastics and rubber goods caused a heavy pall of smoke over a wide area. Smoke filled the apartments above the store and one tenant, who feared she was cut off by the fire, reached a third floor a window, and dropped her son into the arms of Police Capt. Culhane, on an extension roof. She was then led to safety by firemen wearing smoke masks. The second floor was vacant.

Fireman Beatty died half an hour after complaining of illness following his return to his firehouse. He is said to have been the only fireman on duty at the fire who was not wearing a mask.

Empire State Crash Claims

Damage claims totaling more than $400,000 have been paid by the government as a result of the bomber crash into the Empire State Building, July 28, 1945. One hundred and twenty-four claims were filed; only ten remain to be settled.

The largest claim—$288,901.90—goes to Empire State, Inc., operators of the world's tallest building, for damages sustained in the disaster which killed fourteen persons. The corporation originally asked for $487,357.44, but the difference—$198,445.54—was paid by insurance companies for fire damage.

Discussing the claims, Col. James A. Travis, chief of the claims division of the Army Air Forces said that of the 124 filed, twenty-eight were rejected. Eighty-two others, for amounts under $1,000 were paid within thirty days after filing. Seven others are over $1,000 and must therefore be paid by Congressional appropration. They are still awaiting approval, he said, as are about three other claims not fully investigated. The smallest payment was for $3 which went to pay a doctor's bill of a girl who had suffered from shock. Among the rejected claims, it was disclosed, was one from a man who reported he left his fountain pen on his seventeenth-floor desk in the excitement and could not find it when he returned.

Every Hale Pump—Centrifugal or Rotary—is the Result of Constant Laboratory and Field Research

FIRE PUMPS HALE CONSHOHOCKEN PA

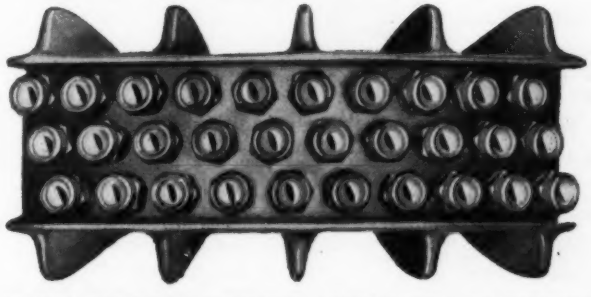
Constant research results in constant improvement.

Because of the importance of research in the endless war against fire, it has always been Hale's policy to keep research facilities up-to-date. Continuance of this policy is exemplified in the recent addition of a new and larger research laboratory.

Write today for up-to-date information on Hale Fire Pumps . . . built in all standard capacities.

HALE FIRE PUMP COMPANY
Conshohocken, Pa.

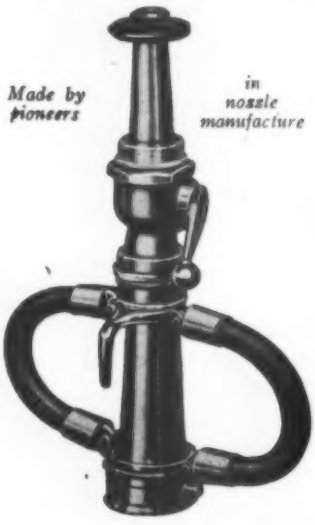
HYDRAULIC IMPINGEMENT
Gives You
LOWER OPERATING PRESSURE, GREATER VOLUME and a NOZZLE to MEET EVERY OPERATING PRESSURE



LARGE HOLES WHICH PREVENT CLOGGING

PARADISE MFG. CO.
3165 S. PENN ST. INDIANAPOLIS 44, IND.

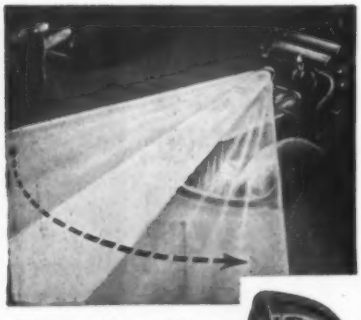
"All American Choice"



Made by pioneers in nozzle manufacture

INVINCIBLE
NOZZLES

F. N. McINTIRE BRASS WORKS
Successors to A. J. Morse & Son, Inc.
BOSTON, MASS.
1837 — 1945



Clear the Way
with a
WIG-WAG
REDHEAD
ON YOUR EQUIPMENT

Day or night clear your side of street with the Wig-Wag Redhead. Its oscillating red beam sweeps the street and flashes red signals through—to the windshields of cars far ahead of you. Faster—safer—and no noise. Precision-built; moderately priced.

CARPENTER MFG. CO.
2002 Master-Light Bldg., Boston 45, Mass.

Gentlemen: Please send folder 148. I want more information on Master Lights.

NAME .....
ADDRESS .....
CITY..... STATE.....

Convention Dates

June 26—CENTRAL WESTERN FIREMEN'S ASSOCIATION. Annual meeting, Covington, Ohio. Registrations, Roger C. O'Donnell, Chief, Covington, Ohio, Fire Department.

June 26-27 — NORTHERN CENTRAL NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, East Rochester, N. Y. Secretary, William L. Reid, Jr., East Rochester, N. Y.

July 8-10 — OKLAHOMA FIRE COLLEGE. Thirteenth Annual Meeting, Oklahoma A. M. College, Stillwater, Okla. Chairman, Registration Committee, Chief C. C. Jennings, Tulsa, Okla.

July 18-20 — CENTRAL NEW YORK FIREMEN'S ASSOCIATION. Annual meeting, Auburn, N. Y. President, Archie Spencer, Sidney, N. Y.

July 23-24—WESTERN NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Fredonia, N. Y. Secretary, James H. Surridge, Industry, N. Y.

July 23-25—KENTUCKY FIREMEN'S ASSOCIATION. Annual meeting, Paducah, Ky. Secretary, Captain V. A. Beam, 3504 Garland Avenue, Louisville 11, Ky.

July 23-26—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS and GREAT LAKES ASSOCIATION OF FIRE CHIEFS. Annual meeting, Cleveland, Ohio. Secretary, Chief Daniel B. Tierney, 8 Robbins Road, Arlington 74, Mass.

Aug. 5-9 — PENNSYLVANIA FIRE SCHOOL. Annual meeting, Lewiston, Pa. Director, Edgar A. Spotz, Adviser, Fire Service Training, Public Service Institute, Harrisburg, Pa.

Aug. 6-8—INDIANA FIREMEN'S ASSOCIATION. Annual meeting, Fort Wayne, Ind. Secretary, Dee L. Corbin, Fire Headquarters, Bedford, Ind.

Aug. 12-14—WISCONSIN STATE FIRE CHIEFS' ASSOCIATION. Annual meeting, Neenah, Wis. Secretary, Arthur J. Rahn, Chief of Fire Department, Two Rivers, Wis.

Aug. 27-30 — DOMINION ASSOCIATION OF FIRE CHIEFS. Annual meeting, Timmins, Ont. Secretary, Chief Allan H. Clark, Lakefield, Ont.

Sept. 9-13—INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS. Annual meeting, Toledo, Ohio. Secretary-Treasurer, George J. Richardson, A. F. of L. Building, Washington, D. C.

Oct. 14-16—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Omaha, Neb. Secretary, Russell D. Salak, P. O. Box 312, Schuyler, Neb.

Oct. 15-17—ILLINOIS FIREMEN'S ASSOCIATION. Annual meeting, Quincy, Ill. Secretary, Chief Roy Alsip, Fire Headquarters, Champaign, Ill.

Nov. 11-14 — INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. Annual meeting, Miami, Fla. Secretary, Irvin Shulsinger, 8 East 41st Street, New York 17, N. Y.

Deputies Qualify for Chief's Test at Baltimore

All four Deputy Chiefs of the Baltimore City Fire Department may now take an examination for the position of Chief Engineer, according to new rulings by the City Service Commission. Previously, the examination had been restricted to a Deputy with at least one year of service in the rank.

Since this would have left only two of the Deputies eligible for the test, it was felt that the other two officers should be included in the coming examination. Howard Travers is at present holding the position of Chief Engineer, where he has served since 1932.—OTIS SMITH.

Fire Truck Crash Kills Fireman

In Hainesport, Burlington County, N. J., a fire truck overturned while enroute to a fire, killing the driver, Harry Forvour, 37-year old volunteer fireman.

Forvour was pinned beneath the truck after it collided with an automobile at a street intersection three blocks from the fire house in Hainesport. The fire was reported to have been inconsequential.

HOSE BRASS GOODS
WB LINE
THE WOOSTER BRASS CO.
WOOSTER, OHIO

SOME WORDS FOOL YOU
like
RAISE (to erect) RAZE (to destroy)
BUT
WOOSTER BRASS always means the BEST in fire equipment supplies.

THE WOOSTER BRASS CO.
WOOSTER, OHIO

When you specify products bearing the TRUMPET trademark, you can SAVE and BANK on SAFETY.

PROMOTIONAL STUDY COURSE FOR FIREMEN
By Fred Shepperd, B.Sc., M.E.

Published in response to numerous requests from fire department officers and men working for advancement, this book embraces the famous "Promotional Study Course" which ran serially in FIRE ENGINEERING and proved to be so tremendously popular. Covering in chapter lessons most of the important phases of fire protection promotional study—mainly in questions and answers form—all of it in the concise style generally used and preferred by civil service examiners.

To fire chiefs and other officials responsible for preparing examinations, this book will be found most helpful. And it is a mighty good reason, too, why fire officers and men should find it of inestimable value in studying for advancement.

$3.00 PER COPY POSTPAID

CASE-SHEPPERD-MANN PUBLISHING CORP.
24 W. 40th St., New York 18, N. Y.

Classified Advertisements

Rates are inexpensive. "For Sale," "Proposal" and "Wanted" advertising. $5 per inch insertion (10% discount allowed for three or more consecutive insertions). FIRE ENGINEERING, *24 West 40th Street, New York 18, N. Y.*

WANTED

Fire Equipment Dealers to sell Morning Pride protected rubber firecoats, fire pants, fire mitts and fire suspenders.

Write today Morning Pride Mfg. Co., 1986 Home Ave., Dayton 7, Ohio.

CHIMNEY POWDER

No need to send men on the roof for chimney fires. Has-Mor Soot Destroyer not only puts the fire out, it continues to work until it cleans the chimney, making it unnecessary to go back to another chimney fire. Put up in handy packages. Agents wanted. Harry S. Morgan, 52 Broad St., Johnson City, N. Y.

WANTED

Fire Protection Engineer with Engineering Degree, preferably World War II Veteran with organizational and fire-fighting experience. Age 30-40. Salary open. Address: Box 5, c/o FIRE ENGINEERING, 24 W. 40th St., New York 18, N. Y.

FOR SALE

Brass Indian Pumps Complete $24.00 ea. Prompt Shipment. Doray Fire Equipment Co., 1924 Valley Drive, Syracuse 7, New York.

FIRE AND POLICE BADGES

WANTED—Dealers or sideline salesman to sell Fire, Police, Bus, Taxi and Service Badges, on commission. Nickel, chrome or gold plated; lettered as desired. Write for Illustrated Folder "FE." NASSAU SALES CO. (Est. 1923) Floral Park, N. Y.

POSITION WANTED

As fire chief or fire department instructor by a young, progressive veteran of World War II who served as a fire chief on a U. S. Navy shore establishment and as a U. S. Naval District fire inspector and instructor. Also certified as a fire department instructor by Oklahoma A&M College Fire Service Training School. Experienced in fire department organizational work. Excellent references. Age 31, married. Box No. 10, FIRE ENGINEERING, 24 West 40th St., New York 18, N. Y.

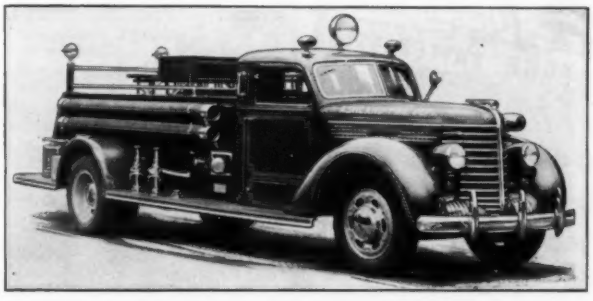
FIRE TRUCK FOR SALE

1930 Long Wheel Base Chevrolet Chassis, 200 GPM Rotary Pump, 250-gal Booster Tank, 200 ft. 1" Booster Hose with Hose Reel, 3 10-ft. lengths Suction Hose, Spare Tire, Siren Searchlight, 1 24-ft. Extension Ladder, 12-ft. Roof Ladder, 2½-gal. Foamite Extinguisher. Paint and everything in excellent condition. Write Lava Volunteer Fire Dept., Inc., c/o L. Bonhard, Narrowsburg, New York.

FOR SALE

Double end, 3 Phase, 5 Horsepower used Siren. Magnetic Switch and push button box. Riviera Beach Vol. Fire Co., Inc., Pasadena, P. O., Maryland.

Champion Fire Apparatus

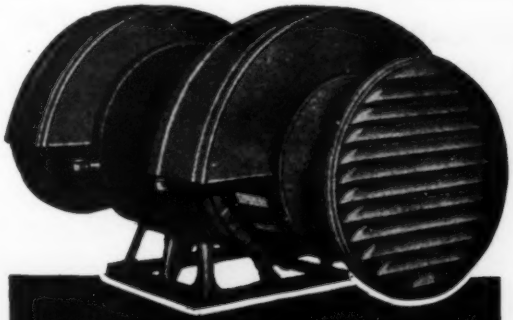


Champion Fire Pumps

NEW 24-PAGE BOOKLET IN COLORS

Write Today For Your Copy

W. S. DARLEY & CO., CHICAGO 12



STERLING MODEL "M"

GENERAL ALARM SIREN

You Can Depend On It ALWAYS

An absolutely dependable, tried and proven siren for communities of all sizes. Loud, clear, simple to instal and no maintenance to bother with. Embodying the "know how" of the oldest and largest makers of siren signals in the fire field. Write for descriptive literature and list of towns using the model "M".

ALSO

manufacturers of a complete line of apparatus sirens.

Write for literature.

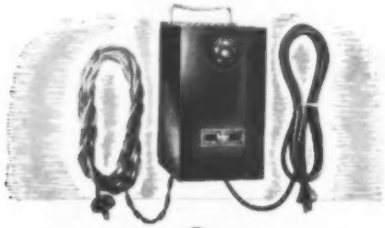
STERLING SIREN FIRE ALARM CO., Inc.
55 Allen Street Rochester, New York

Simply Plug In and Charge—with a G-E Tungar* Charger

Don't let slow-poke starting mar the good record of your fire apparatus. An efficient Tungar charger will put new life in run-down batteries overnight. Just plug into steering-post receptacle. No risk of overcharging.

For details, write Section A6611-58, Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn.

** Trade-mark Reg. U.S. Pat. Off.*



GENERAL ELECTRIC

FOR THE PROPER CARE OF YOUR FIRE HOSE

DAYTON POWERDRAULIC EXPANDER

Motor-driven with ¾ h.p. gear head motor.

★ Expands couplings from ¾" to 6" size.

Tests hose up to 700 lbs.

Extra attachment removes old expansion rings from old couplings. No manual effort needed. ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

MORE PRESSURE - LARGER MOTOR
ROOMIER WORK TABLE
REPLACEMENT SEGMENTS (ALL SIZES) FOR ANY OLD HYDRAULIC EXPANDER

SEND FOR ILLUSTRATED BULLETIN

DAYTON FIRE EQUIPMENT CO.

1242-48 W. 2ND ST. - DAYTON 7, OHIO

Persons in the News

(*Continued from page* 435)

ing to the "Regiment de Sapeurs-Pompiers de Paris" on the subject of which an article appeared in the July (1945) number of FIRE ENGINEERING.

"The Regiment de Sapeurs-Pompiers de Paris is an institution unique in the whole world. It is an infantry regiment of the French Army placed at the disposal of the City of Paris in order to provide its people a fire and rescue service. Completely and solely devoted to these two missions, this elite body has bestowed on Paris a fire service which is both strong and rational. Its military origin dates back to the Emperor Napoleon (1811).

It is not without interest to outline the personality of the chief who has recently come to take over command after 21 months of captivity in Germany.

"Lieutenant-Colonel J. M. Maurelle was born in 1896. Coming from the famous military school of Saint-Cyr, he served throughout the 1914-18 war in the infantry, where he was wounded five times and awarded three citations. Entering the Regiment de Sapeurs-Pompiers in 1920 as Lieutenant, he was promoted Captain in 1926 and entered the Service Technique (technical department) in 1931, of which he assumed control in 1938 with the rank of Chef de Battaillon (deputy chief). Quitting the service in March, 1943, by order of the Germans, he was arrested by them in the following July. Like thousands of others, he was freed by the victorious advance of the Armies of the United Nations."

Chief Leech, Decatur, Plans Improvements

Among the numerous progressive fire chiefs who are putting through post-war improvement programs is Chief Ira D. Leech of Decatur, Ill. Impartiality will be a strict rule in his direction of the department, Chief Leech says.

With Dr. P. A. Steele, commissioner of public health and safety, Chief Leech said plans are being worked out for a spring training program in which coordination among firemen will be developed, drivers given special training and the important matters in developing fire-fighting technique will be stressed. Chief Leech has requested additional gas-masks for his men, among other equipment.

Decatur expects a new $20,000 aerial truck this year and the department is installing two-way radio for the chief so that he may be in direct communication at all times with Number 1 station. Decatur has six fire stations.

Decatur has been in the limelight since for the third time it has taken second place in the National Fire Prevention Week Contest in the State of Illinois—second only to Chicago. Ira D. Leech, the new Chief of the Decatur Fire Department, has been on the force twenty-five years and was elevated to the post of chief from assistant chief in February.

Photo Courtesy E. M. Rhoades

Chief Ira D. Leech, Decatur, Ill., Fire Dept.

Max Vallen Advanced

Battalion Chief Max Vallen has been selected to take charge of the Division of Fire Prevention, Brooklyn and Queens.

He was appointed to the New York Fire Department on July 1, 1913; was promoted to lieutenant on November 1, 1922, and to captain on May 4, 1926. He headed the list for battalion chief in 1939 and was assigned to the 6th Battalion and later to the 38th and 1st.

Battalion Chief Max Vallen

The area covered by his new appointment consists of approximately 200 square miles, 35,000 factories, 15,000 factory buildings and 168,000 other building, in addition to approximately 345,000 multiple Class A and B dwellings, stores and hotels.

Columbus F. D. Changes to F.M. Radio

The police and fire radio, station WPDI, of Columbus, Ohio, will be changed to short-wave F.M. (frequency modulation) within the next five months, it has been announced by Mayor Rhodes.

It is estimated that the change-over will cost the city approximately $58,000, about $34,000 of which will be for receiving and sending equipment on fire apparatus and police cruisers to be purchased under a bond issue of $575,000

approved at the election for new equipment.

Under the new set-up, the police and fire departments will operate their own independent radio stations, operating on their own frequencies.

One advantage of the new system, according to James G. Harkins, superintendent of police and fire communications, is that it will cut down receipt of radio calls by private receivers and "ambulance chasers."

The action of Columbus is in line with that of many other cities where the fire and police departments have taken advantage of, or are planning to take advantage of, last year's decision of the Federal Communications Commission to permit fire and police departments to operate their own short-wave broadcasting and receiving stations.

Southeastern Association Holds Convention

The convention of the Southeastern Association of Fire Chiefs, held in Miami, Fla., on May 7, 8 and 9, was one of the most successful in the history of the Association.

Host Chief Henry Chase, of the Miami Fire Department, and Miami City officials, headed by Mayor Perrine Palmer, Jr., provided a busy and entertaining program.

On Tuesday afternoon, May 7, after appropriate welcomes from local Association officials, and the memorial services, the business sessions began with addresses by H. F. Hinton on "Teacher Training and its Advantages to Our Fire Departments"; Chief Earl Langley, Florida State Hospital: "Fire Protection for State Institutions"; Chief Cal Johnson, Knoxville, Tenn., "Traffic as it Effects the Fire Service"; Chief William Brosnan, Albany, Ga.: "Increase Loss of Life and Property Due to the War and Postwar" and Chief Forrest Howard, Sebring Fire Dept.: "Volunteer Fire Departments and Their Organization and Purpose".

Wednesday's sessions included talks by Lt. Ben Demby, Chief of Communications, Miami, on: "The Value of Radio in the Fire Service;" Chief Roy Sterling, Tampa, Fla.: "Problems Encountered by Undermanned Fire Departments;" Chief Ed Roberts, Miami: "Hydrant Maintenance Tests and Supply;" Chief L. L. Petrey, Mobile, Ala.: "Value of Military Training;" Dr. Ross, Miami: "Value of First Aid Training in the Fire Service;" Chief J. N. Farmer, Petersburg, Va.: "Problems of Annexation;" J. Edwin Larson, State Fire Marshal: "Activities of Fire Marshal's Office," and a talk by Jerry Ganz, Veterans Administration, Miami.

Entertainment features included a moonlight boat ride on Biscayne Bay; a beach party and picnic lunch; cocktail party at Saratoga Inn, where the banquet also was held; a dance at the City Auditorium and a deep sea fishing trip and shopping tours in Miami and Miami Beach.

New Officers

Chief W. M. Mullins of Roanoke, Va., was elected president, Chief L. L. Petrey of Mobile, Ala., first vice president and Chief C. C. Styron of Atlanta, Ga., second vice president and Walter W. Stephen reelected secretary-treasurer for the coming year.

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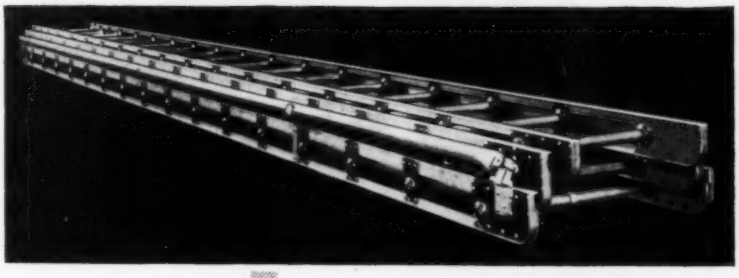

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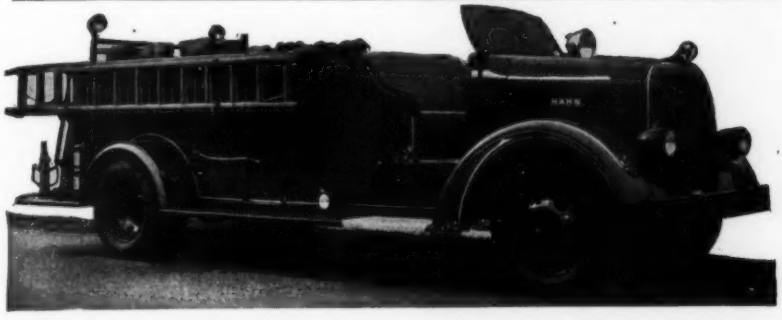

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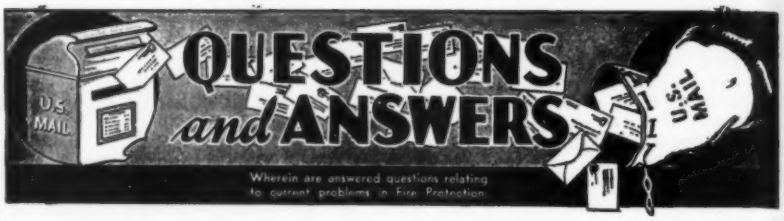

Treatment of Hose and Salvage Covers

To the Editor:

Will you kindly advise us where we may secure information on a mildew-proof compound or solution for the prevention of mildew on fire hose and salvage covers, for fire department use?

H. F. O.

Answer: Mr. Edward Abrams, Microbiologist, National Bureau of Standards, U. S. Department of Commerce, Washington, D. C., has supplied the following information on mildew-proofing compounds.

"We have tested linen fire hose and cotton duck, used for tents and tarpaulins, impregnated with various fungicides. For the severe type of service to which fire hose and salvage covers are subjected, it has been found that only the very best fungicides will give protection. At the present time copper naphthenate applied in an organic solvent in a concentration of 0.8% Cu. based on the finished weight of the fabric is recommended for this purpose. Further information concerning this treatment may be found in U. S. Army Specification 100-17, Type I.

"If the fire hose is rubber-covered or lined, or if uncoated linen hose is expected to come in contact with rubber articles, copper naphthenate should not be used since copper accelerates the deterioration of rubber. In this circumstance, it is permissible to use either zinc naphthenate or zinc dimethyl dithiocarbamate. Either of these compounds should be used in a concentration of 1.5% Zn. based on the finished weight of the fabric.

In the case of the salvage covers, it is considered advisable to incorporate both fire resistant and water repellent treatments with the fungicide for greater serviceability. Such treatments are discussed in "The American Dyestuff Reporter", vol. 33, No. 9, April 24, 1944, pages 189 through 192."

Discharge from Hydrant Feeding Line

To the Editor:

A pumper is located 500 feet from a hydrant and being supplied with water through 500 feet of 2½-inch hose from the hydrant. It is pumping through 50 feet of 2½-inch hose wyed into two 1½-inch lines equipped with ½-inch nozzle tips. The working pressure at the hydrant is 25 pounds, with a flow of 100 gallons per minute and a friction loss of 3 pounds per 100 feet of hose. The intake pressure at the pumper is 10 pounds, making the total friction loss 15 pounds and the discharge pressure at the pump is 65 pounds. This gives a nozzle pressure of 45 pounds on each of the 1½-inch lines and a flow of 50 G. P. M. on each of the lines. The part of the problem that is not clear to me is the amount of flow at the hydrant. By the formula given in "Fire Service Hydraulics," Discharge is equal to 29.7 times D squared times the square root of the hydrant pressure times .90, which would give a flow of 835 gallons per minute at the hydrant. What is the difference between hydrant pressure and working pressure at the hydrant? How do they arrive at the conclusion that there is only 100 gallons per minute flowing at the hydrant instead of 835 gallons per minute.

L. W. C.

Answer: The discharge from a hydrant butt as found by formula is the free discharge to atmospheric pressure.

When you have a hose line attached to the discharge outlet of a hydrant, and this hose line in turn feeding a pumper which supplies a layout equipped with nozzles, you have a very definite resistance to the flow of water from the hydrant. Thus the effective hydrant pressure is not the pressure found in the main, minus the friction in the hydrant, but rather this pressure minus the pressure loss in the hose due to friction, elevation, etc.

It is almost the same situation as where a pump is being operated at a given pressure. It may have a rated capacity at this particular pressure of say 750 gallons per minute. However, if the discharge gates are throttled down (partly closed) you may still have the same pressure at the pump, but the discharge is materially less. Thus, the discharge from the two nozzles in the layout you give does not represent the maximum discharge from the hydrant at the given hydrant pressure where the butt is discharging to atmospheric pressure.

Pumper Pressure in Branched Layout

To the Editor:

An engine is pumping through 1,000 feet of 2½-inch rubber lined hose which is branched into two lines of 1½-inch hose, each 100 feet in length and each equipped with a ⅝-inch nozzle. We would like to maintain a pressure at each nozzle of 50 pounds. What would be the pressure

required at the pumper? Could you disregard the friction in the 2½-inch hose in this layout?

R. K.

Answer: There are two ways of solving this problem: 1. Combine the layout into a single line of 2½-inch hose and combine the two ⅝-inch nozzles into a single nozzle of equivalent size, and then solve for the engine pressure. 2. The other way, and which is more satisfactory in this case, is to find the pressure at the wye and the friction loss in the 2½-inch hose from the engine to the wye connection. The sum of these two pressures will you give you engine pressure.

The pressure at the wye is equal to N. P. x (1 + KL), where N. P. is nozzle pressure, and is 50 pounds; K, a factor depending on nozzle and hose diameters is .234; L, the number of 50-foot lengths of hose in the line is 2.

Then the wye pressure is

$$50 \times (1 + .234 \times 2)$$
$$= 50 \times 1.468$$
$$= 73.4 \text{ pounds.}$$

The discharge from the ⅝-inch tip at 50 pounds nozzle pressure is $29.7 \times \frac{5}{8} \times \frac{5}{8} \times \sqrt{50} = 82$ gallons per minute.

Discharge from the two ⅝-inch nozzles would then be 2 x 82, or 164 gallons per minute.

This is the flow through the single 2½-inch line from the engine which supplies the two branched lines.

The friction loss in 100 feet of 2½-inch hose carrying 164 gallons per minute equals $2 \times Q \times Q + Q$, where Q is the flow measured in hundreds of gallons per minute.

Then friction loss in 100 feet of 2½-inch hose equals $2 \times 1.64 \times 1.64 + 1.64 = 7$ pounds.

The friction loss in 1,000 feet of hose would be 10 times as much or 70 pounds.

Then the engine pressure will be equal to this friction loss plus the pressure required at the wye, or 70 + 73.4, or 143.4 pounds.

S.F.F.D. Gets Exclusive Radio Frequency

The San Francisco Fire Department has recently been granted a license by the Federal Communications Commission for two-way radio exclusively for fire department use, with the main transmitter on 1630 kilocycles and the mobile transmitters on 35,580 kc.

Chief Engineer Albert J. Sullivan has commissioned Captain William H. Gilmore of the San Francisco Fire Department to direct research into the use of fire department two-way radio with a view to his fire-fighters developing fullest possible benefits from its installation.

Boston Seeks Army Fireboats

Fire Commissioner Codman of Boston, Mass., revealed that the city hopes to purchase five small Army fireboats to enlarge and modernize the Boston fireboat fleet, now composed of only two boats, the Matthew J. Boyle and the 50-year-old Angus MacDonald.

It is said the city would bid for the Army boats built at $75,000 each, and to be sold for $3000 to $5000 each as soon as they are declared surplus. One of the boats, if secured, will be outfitted as a "foam boat" to fight oil fires.

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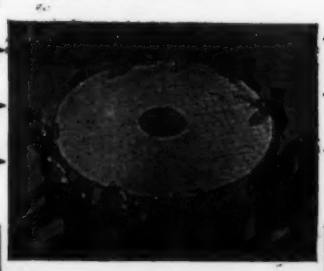

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JUNE, 1946

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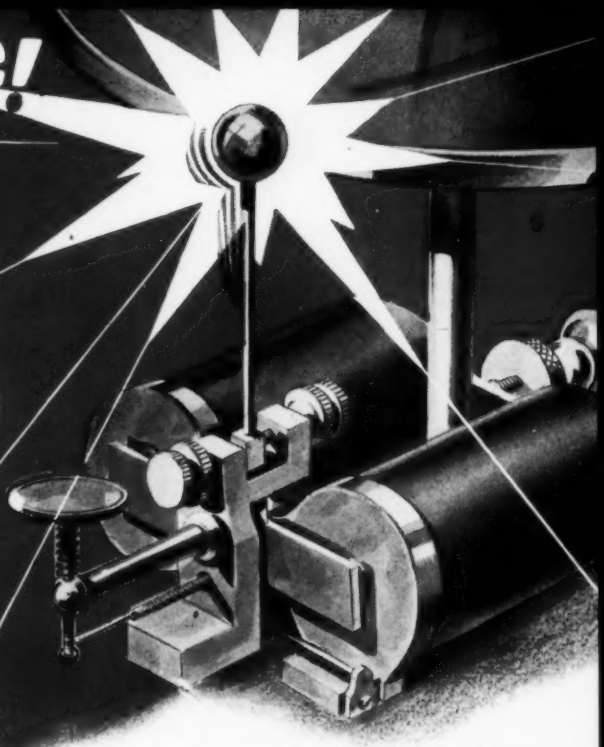

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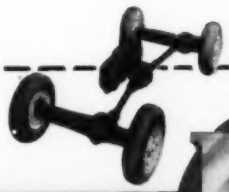

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